



SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

GOVERNMENT COLLEGE OF ENGINEERING AND CERAMIC TECHNOLOGY

SEVENTY THREE ABINASH CHANDRA BANERJEE LANE BELEGHATA

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Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Government College of Engineering and Ceramic Technology, the then 'Bengal Ceramic Institute', was established on 3rd April, 1941, with the basic objective of imparting technical skill in ceramics in the form of hands-on training on the production of traditional potteries along with other conventional ceramic products which required low capital investment and could provide a vocational skill to large number of impoverished displaced persons from erstwhile East Bengal, eastern part of Bengal province before partition.

B.Sc(Tech) degree program was introduced in the year 1962 in the institute under the University of Calcutta making the institute first prominent seat of ceramic education in entire India. Govt. of West Bengal introduced two more B.Tech degrees in Information Technology and Computer Science & Engineering in the year 2000-2001 even as the Ceramic degree program continued to grow and was rechristened as a B.Tech program with more emphasis in technology.

Department of Ceramic Technology received 1st NBA accreditation for its B.Tech program for three years from 15.02.2005. An M.Tech program in Ceramic Technology was introduced in 2006-07.

World Bank awarded a development project of Rs. 7.36 crore under Technical Education Quality Improvement Program (TEQIP) for a massive upgradation of infrastructure and some reforms in administrative and financial set up. Department of Ceramic Technology received NBA accreditation for the 2nd time in July, 2008 and Department of Information Technology was also granted accreditation for three years from February, 2009. M.Tech program in Information Technology was introduced in the year 2012.

UGC conferred academic autonomy in 2012. The institute was awarded 'A' status by NAAC in May, 2015. The autonomous status was further extended for 5 years.

In 2018, the institute reformed the whole Academic Regulation with a view to introduce more transparency in the evaluation process of students and enhance the weightage of continuous evaluation system.

The institute introduced following reforms:

- Flexible academic curriculum allowing students to choose from bucket of elective courses
- Introduction of MOOC courses to qualify for B.Tech (Hons)
- Introducing CGPA system in place of DGPA
- Flexible internship programme for enhancing employability.

Vision

To cultivate excellence in various fields of engineering and technology by imparting core knowledge to the students and to transform the institution into a center of academic excellence and advanced research apart from producing skilled technologists.

Mission

- M1: To impart high quality technical education with ethical values that will produce globally competitive engineers & technologists..
- M2: To inculcate entrepreneurial skill and leadership quality amongst potential students.
- M3: To motivate students for acquiring and eventually generating advanced knowledge.
- M4: To create compassionate, responsible and innovative global citizens
- M5: To strengthen Institute-Industry interaction to make the students aware of real problems in the Industries and solutions thereof

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- Illustrious alumni hold very high positions like Executive Director in SAIL; Directors, Vice Presidents in multinational companies.
- Alumni Association (Registered) remains engaged throughout the year in arranging programs beneficial for both the students and the faculties and holds National level symposium on contemporary topic relevant to the course curriculum.
- NBA accreditation granted to B.Tech. program in Ceramic Technology twice, M.Tech. program in ceramic technology once and B.Tech. program in IT once.
- Infrastructural facilities augmented hugely through implementation of TEQIP-I project (Rs. 7.36 crores), a World Bank assisted program.
- The institute was conferred 'A' Grade in first cycle of accreditation by NAAC.
- Autonomy status granted by UGC is still continuing.
- Curriculum across all programs continuously upgraded as per guidelines issued by AICTE from time to time.
- B.Tech. with Honours conferred upon students acquiring 20 extra credit points through MOOCs.
- Choice based credit system implemented.
- Dynamic elective papers in emerging fields offered to students to fulfill the upcoming needs of industry.
- Highly transparent evaluation system providing the students opportunity of viewing evaluated answer scripts in all levels before finalization of marks.
- Best practices continuously monitored by IQAC.
- Mentors take regular care of various needs of students.
- Sensitization programs on social issues conducted regularly through NSS activities.
- Rank holders and best graduates offered medals on graduate day with a view to creating a healthy competitive academic environment among the students.
- Hugely funded Government and non-Government projects successfully being run by faculties.
- Substantial number of publications in peer reviewed journals along with few applications for patents (granted and filed).
- Active collaboration projects with industry and reputed institute in some cases through formal memorandum of understanding (MoU).

- Excellent placement records to campus initiatives.
- Notable performance of students in National level examinations such as GATE, CAT etc.
- Availability of plenty of freeship and scholarship schemes for meritorious and financially weaker students.

Institutional Weakness

- Being located in the central district of Kolkata with only 2.53 acres of land in possession, the institute faces tremendous difficulty in expansion of physical infrastructure.
- Shortage of land makes it difficult to convert the institute into an entity with multi-discipline in line with NEP 2020 recommendation.
- With present provisions, no professor of practice could be engaged.
- Acute shortage of technical support staff makes running and maintaining laboratories extremely difficult.
- Shortage of manpower in library prevents it to remain open beyond normal college hours.
- Because of shortage of space amenity area and other facilities for stakeholders are insufficient.
- No girls' hostel could be constructed as yet.
- Covid-19 pandemic (March 2020 to March 2022) severely impacted development programs.
- Very limited scope of sending faculties for industrial training as per AICTE norms and new CAS guidelines.
- No Postgraduate program in Computer Science and Engineering could be introduced.

Institutional Opportunity

- Given the dearth of adequate numbers of IT professionals in teaching and research, there is scope of introducing additional PG programme in IT and CSE.
- With the growing demand of Artificial Intelligence, Data Mining etc., B.Tech (AI) programme can be introduced.
- Expertise of illustrious alumni, having experience in positions of Executive Director in SAIL, Directors or Vice Presidents in Multi National companies in the fields of marketing, production and R&D can be utilized to enhance employment opportunity and academic development.
- Being a 82+ years' old institute, the experience of large pool of retired alumni can be harnessed to improve the quality of placement and research activities.
- Being a Government intitute with nominal fee structure, it offers excellent opportunities to meritorious students with weak financial background of remote areas, as a very special service to the community.
- Being centrally located in Kolkata, it offers the students the scope of exploring collaborative activities with Calcutta University, Jadavpur University, IEST, Maulana Abul Kalam Azad University of Technology in the vicinity, apart from considering pursuing higher studies in those institutes in future.
- National laboratories of very high quality like Central Glass and Ceramic Research Institute, Saha Institute of Nuclear Physics, Indian Association for the Cultivation of Science, S.N. Bose National Centre for Basic Sciences, Bose Institute, Indian Statistical Institute, NITTTR in the vicinity provides excellent opportunity for advanced research work and resource sharing.
- Existence of IT- hub of Kolkata, only 3 km away at Salt Lake (Sector V) offers excellent opportunity for exposure to most updated knowledge bank for development of sophisticated R&D projects and superior grade consultancy services.

- Collaborative research with industries can be developed into full-fledged Industrial Consultancy service, especially for the Department of Ceramic technology.
- Faculty exchange program with National and International institutes of repute can be developed into a regular practice.

Institutional Challenge

- Obsolescence of technologies being very fast, remaining relevant with continuous upgradation of course curriculum is a strong challenge.
- As a consequence of globalization, national boundary is becoming very porous, making way for opening campus in India by foreign institutions with better infrastructure and human resource which puts up a very tough existential challenge for govt. run institutions like this.
- The curriculum of the institute need to be upgraded regularly in line with NEP-2020 recommendation to keep pace with rapid change in education sector in order to avoid the prospect of being irrelevant.
- To sensitize all stake holders about the objective of Outcome Based Education (OBE) is a tough task.
- Aggressive invasion of Artificial Intelligence (AI) in all sectors of job market poses a serious threat to employment opportunity for future pass-outs.
- Without regular restructuring of syllabi along with improvement / up-gradation of laboratory facilities and removal of obsolescence of technology, attracting good students is a difficult proposition.
- Standard graduate programs facing a stiff competition from institutes offering need-based diploma / certificate courses according to local industry requirement.
- Pay packet offered by industries being much more attractive than is available in research and educational institutes, directing the students towards higher education is a challenge.
- Mobilization of resources for the development of the institute has become a great challenge with gradual reduction of fund from the Government.
- Given the free availability of various online resources, students are reluctant to attend theory classes. Changing the orientation of theory classes in order to attract the students by thoroughly retraining the teachers is a tough challenge.
- With personal achievement becoming sole driving force for young minds in the present age, motivating the students towards social service is a tough task.
- To infiltrate ethical and moral values in the minds of students is a challenging task for the institute.
- Objective oriented mentoring of students for holistic development through already existing mentor-mentee scheme is a challenging task for the mentors.
- No formal Students' Union exists in the institute presently. The student issues are being looked after by a committee of the Students' Welfare Association (SWA). To maintain its apolitical nature in a politically surcharged general social atmosphere is a tough task.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The College aims to inculcate the best academic culture through rigorous teaching and training programmes. Students are encouraged to aspire for higher level of academic standards by mastering the subject and acquiring research acumen. The curricula focus on integrating knowledge with skill aiming to foster an environment of learning and creativity. These are in tune with the vision and mission of the institution which are made available to its' stakeholders through the College website. The College takes pride in introducing Ceramic

Technology as the second oldest B.Tech programme in the country, which is the only College in Eastern India to offer the programme at this level. The College also offers two B.Tech programme in Information Technology and Computer Science & Engineering.

These programmes provide academic flexibility in the choice of elective subjects (CBCS). Elective baskets are flexible and are offered suitably in every year according to the need of industries. Ample numbers of electives are offered in cutting edge technology for the benefit of the students. Curriculum restructuring is indeed a continuous process and periodic reviews by respective Board of Studies ensure that.

The syllabi of all B. Tech programmes have been restructured and thoroughly revised strictly as per new AICTE guidelines 2019 with due care to National and International needs. Students are given opportunity to choose MOOCs (20 credits in total) from NPTEL SWAYAM portal as per their choice from the very beginning and thereby they can get the B. Tech degree with Honours.

The College collects feedbacks from various stakeholders like students, alumni, employers, which are duly considered in *Board of Studies and Academic Council* and Governing Body meetings during review and modification of course curricula on regular basis.

Industrial Training/Internship has been made a compulsory integral component across all programmes offered. There is a provision in the new curriculum to send students for internship and project to industries during 8th semester of the course with flexibility in academics.

Special emphasis is given in selection of projects that are offered by industries.

M/s WIPRO and TCS run training programmes for the 3rd year students of IT & CSE disciplines. The institute, jointly with the active Alumni Association of the College organizes periodic need based industrial lectures, delivered by highly experienced alumni for the benefit of the students and faculty.

Teaching-learning and Evaluation

Students are admitted through central counseling by WBJEEB for the B. Tech courses and by MAKAUT, WB for the M. Tech courses after PGET entrance test conducted by the University maintaining the admissible seat matrix as per State Govt. rule regarding reservations viz. General, SC, ST, PWD etc. The institute imparts a student centric outcome based education from the very beginning.

The institute, during induction of new entrants, after conducting some bridge courses on Mathematics, Physics, Chemistry and English assesses the level of merits and standards of all, identifies the advanced and slow learners and attaches mentors for small groups of students. Students' academic and psychological issues are judiciously addressed by the mentors.

Students are encouraged to undergo compulsory industrial internship, participate in National and International level competition, are taken to visit relevant industries as parts of experiential learning.

The institute adopts participative learning methodologies for the students in-as-much-as it organizes various NSS programmes, conducts laboratory classes and offer projects to students, in collaboration with industries as well for hands-on experience.

Teachers adopt ICT enabled tools for an effective teaching-learning. The academic calendar, planned in the beginning of a session is strictly adhered to by the departments. Results are published in quickest possible timeframe. Teaching plans are meticulously documented and course files maintained citing CO, PO, PSO, PEO and the attainment levels.

Majority of faculty have Ph.D degrees and many are actively involved in research activities, leading a few to bring substantial external funding viz. AICTE, DST, SERB, WBDST, IERL etc.

From 2018-19, new academic regulations with restructured and remodeled new curriculum of all programmes have been in force. The main emphasis of the new curriculum is giving equal weightage to continuous evaluation and Semester End Examination. There is a provision in the new curriculum to send students for internship and project to industries during 8th semester of the course.

Students are encouraged to take MOOCs from the first semester of the programmes under CBCS for earning additional 20 credits for attainment of B. Tech degree with Honours.

The marks of all examinations are finalized after personal viewing of the answer scripts by the students as a transparent reform and one of the best practices of the institute, leading to zero grievance compared to previous years.

Research, Innovations and Extension

The institute has a focus on an ecosystem for innovations, creations and transfer of knowledge. A Centre of research has been established in the institute. Members of faculties are encouraged to promote research culture by publishing research articles in peer-reviewed reputed national/ international journals to present research papers in national and international conferences, to undertake funded research projects from various agencies like UGC, DST, AICTE etc. and also from industries. The faculties are granted duty leave and are offered partial financial support for attending conferences to present papers. During the last five years, 182 research papers have been published by the faculties in the referred reputed national/international journals, 15 projects amounting to about Rs. 344 lakhs have been completed and few are ongoing. Dr. B. K. Sanfui, Asst. Professor of Ceramic Technology and his groups have developed advanced ceramic membranes for the separation of CO₂ from flue gas, value-added products like light weight building bricks prepared from agricultural wastes and abrasion-resistant ceramics from industrial waste etc. as well and also successfully characterized and developed four types of zirconia powders supplied by IREL for structural as well as advance engineering applications. Coal ash-based abrasion resistant ceramics developed by Dr. Sanfui had got wide publicity in DD News(<https://ddnews.gov.in/national/industrially-important-ceramic-products-bottom-ash-thermal-plants-may-reduce-waste-worries>). It was also highlighted in the leading newspaper “The Hindu Business line” from - ash/article33372248.ece). Three patents have been filed and one patent has been granted. Some high-quality journal papers have also been published.

Eleven faculty members are acting as Supervisors or Co-supervisors of 20 Ph.D. students. The institute has its research journal “Scientific Voyage”.

The institute has a well-equipped library with a large number of research journals both in print and electronic forms. There are several specialized laboratories like Thin Film Lab, advanced material lab, waste material processing lab, Nano Lab, Image Processing and Computer Vision Lab, GIS Lab which facilitate the faculties and students of the institute as well as other institutes to carry out their research work.

Community services and extension activity is an integral part of course curricula as it extends opportunities to help, serve and learn. Students have to earn three nonacademic credits through community services by means of NSS activity. The extension activities of the college are monitored by the faculty coordinator of NSS unit. Tree plantation drives, rallies on health awareness, awareness on environmental protection, communal harmony, literacy drive, and computer literacy, are some of the outreach programmes organized by the college, regularly in association with industry and other bodies, to make the students aware of their social responsibility and commitment. Collaborative research works have been taken up by faculty members with other Universities, Research Institutes and Industries. The Department of Ceramic Technology has collaborative research work with Dept. of Chemical Technology of Calcutta University, Metallurgical and Materials Engineering Dept. of Jadavpur University, CGCRI, IIT-Guwahati, etc, and different industries. IT and CSE departments are also actively doing collaborative research with different reputed institutes and industries.

Infrastructure and Learning Resources

The infrastructural facility available in our college is adequate to pursue academic activities as per our plans and programs. All the class rooms are well ventilated fitted with ceiling fans, proper lighting and sitting arrangements and with multimedia projection facility and internet connectivity. All class rooms are earmarked for specific programmes and batches. We have at present 10 ICT enabled class rooms and 5 smart class room for holding workshop/tutorials/ special lecture/interactive classes etc.

We have fully air-conditioned Computer laboratories with networking and internet facility along with several licensed software to meet the requirements of curriculum of B.Tech. and M.Tech. programme of the CSE and IT department. We have a central computing lab with 100 PCs and with other state-of-the-art facilities to conduct classes as well as to hold online test, campus drive, web based programmes etc.

The College also has a language laboratory with multimedia facility for conducting soft skill development course and other skill development programmes.

The Ceramic Technology department has eleven labs to meet the requirements of the B.Tech. and M.Tech programme of the department.

The College has two conference rooms equipped with LED tv and internet facility. We have boys hostel in the campus and also a proposed plan for girls hostel.

The College also provides toilet facilities in sufficient numbers for both student and staff and also safe drinking in each floor of the College building.

All these physical infrastructural facilities are optimally used to pursue the academic and other activities of the College. The library of the college has also been expanded and equipped with LMS software (KOHA) and RFID tag for efficient management. The Institute has a well defined IT policy and a 100 mbps internet connection provided by NKN. The institute has also acquired G-Suite for holding of online classes and seminars.

Student Support and Progression

Students in GCECT get the privilege of availing few scholarships under Free-ship scheme of the Govt. of West Bengal, Swami Vivekananda Merit cum Means scholarship, Minority scholarship, SC/ST/OBC scholarship and International scholarship from Islamic Development bank, Soudi Arabia.

The college is at present extending hostel facility to 30 numbers of male students coming from distant places. It provides a healthy environment to the students through several welfare means such as cheap canteen, Grievance Redress Cell, Anti-ragging Committee, Anti Sexual Harassment Committee and a fully functional Academic Section in the College. The practice of providing Equity and Access in availability, special attention to weaker sections and representation of women in all aspects ensure promotion of social justice.

The college also has a state-of-the-art language laboratory to cater to the need of soft skill development of the students. A good number of prospective students have secured a good score in GATE for pursuing PG studies in different prestigious institutes.

The college makes effort to facilitate progression towards gainful employment. There is an active Training and Placement Cell, which, besides arranging campus interview for recruitment of the students, also arranges industrial training with a duration of 6-8 weeks for every students of UG programme and every student has to earn academic credit upon successful completion of such training and on submission of training report thereof. The placement scenario for ceramic technology department is exceptionally well as all the students got employment every year. In CSE and IT department percentage of placement through on and off campus interviews is comparable with market situation.

The college has a distinguished list of alumni and recognized Alumni Association which keeps close contact with the college authority for overall development of the College.

There is a non political Students' Welfare Committee, elected through a democratic process at the college, which takes care of student welfare and promotes co-curricular and extra-curricular activities of the College, organizing Techfest (Karnatec), cultural fest (Jagriti). The Student Council also has representation in various academic and administrative bodies to facilitate smooth functioning of the College. Feedbacks from students are taken in the form of structured questionnaire regularly which help to improve the academics and infrastructure of the College.

Governance, Leadership and Management

The college has taken major initiatives during the last five years in terms of governance and leadership.

The curriculum of the institute have been reoriented from the academic session 2018-19 onwards considering the curriculums of reputed national and international institute; as well as incorporating courses keeping in mind industrial requirements, entrepreneurial leadership qualities, skills such as modern technology usage, critical thinking, problem solving etc and industry based projects. Transparency of evaluation has been upgraded

incorporating continuous evaluation method and direct copy showing to the students, which considerably reduced the review process. Several NSS activities have been conducted to enhance the moral and societal responsibility of the students.

Decentralization and participative management have been practiced throughout by the different departmental, administrative and academic committees under the governance of Board of Governors and under the supervision of IQAC lead by the Principal of the institute, following the orders, advices and guidance from the Department of Higher Education, Government of West Bengal.

The institutional perspective plan is effectively deployed in several areas such as teaching and learning as visible from the good placement record, opportunity for higher education and quality scores in national examinations such as GATE, CAT etc. by our graduates; research and development as visible from good number of research publications, Community engagement following the different campaigns and programmes practiced by the NSS unit and different Policies, Code of conduct etc.

Different service rules regarding appointment, appraisal system, welfare measures and avenues for career progression of teaching and non-teaching staff and financial rules for mobilization of different funds and grants for projects from different bodies such as UGC, AICTE, State and Central DST, RUSA, TEQIP and others have been followed as per the directives, orders and policies of Govt. of West Bengal and the documented Standard Operating Protocol (SOP).

The institution has implemented e-governance in its operations in all major areas such as Administration, Finance and Accounts, Student Admission and Support, and Examinations following the web application of Govt. of West Bengal and the institutional website and dedicated webpage.

Teachers have been encouraged to develop their skills by undergoing Faculty and Management Development Programmes, even during the pandemic affected sessions, which is reflected in an average high percentage of teachers exceeding 22% taking different courses during the last five years.

Different professional development programs, seminars and workshops have been conducted by the institute for teaching and non-teaching staff during the last five years to develop knowledge and proficiency among all.

The IQAC of the institute, under the supervision of the Principal, has contributed significantly institutionalizing the quality assurance strategies and processes, by constantly reviewing the teaching-learning process, structures & methodologies of operations and learning outcomes through periodic discussions, meeting with stakeholders, collaborative quality initiatives with other institutions, Participation in NIRF, academic and financial audits in regular basis etc.

Institutional Values and Best Practices

The institute, concerned about the needs of differently abled persons, has been able to make provision for lift, ramp, and other facilities by the academic year 2016-17. The Alumni Association has started, long before, the practice of holding of health- camps, the benefit of which is extended to the local people too.

Sapling plantation at regular intervals, especially at the time of retirement of an employee, is a regular practice here. Utilization of Solar Power, putting of Vats at strategic Points for dumping waste, Composting of Solid Organic Waste, and reduction of wastage of water by putting warning sticker near water taps have been

introduced to make the campus eco-friendly. In fact, the installation and maintenance of 7 KWP solar PV power plant has been chosen as the Best Practice for 2016-17.

Students undertake various social activities, even to the extent of spending a few days in village of North 24-Parganas to create awareness about health and economic benefits of clean environment in MAHISHBATHAN GRAM PANCHAYAT (No.2) and MAHISGOT PRATHAMIC VIDYALAYA in 2017-18.

In 2018-19, Student Mentoring Process, a chosen best practice, was implemented to cater to the various needs of students, outside the scope of routine curricular activities. Under this, a teacher (mentor) provides assistance, to a group of students assigned to him/her, in the matter of scholarship, difficulty in following classes, psychological stress etc.

In 2019-20, again under a chosen best practice, with a view to establish maximum transparency in publication of result, the institute has introduced the scope of viewing the answer script by the students after evaluation in presence of the evaluator himself/herself and rectification of the score, if there is any possibility, in agreement with the evaluator. However, if the disagreement persists between the two sides, the student is free to pursue the standard laid down procedures to settle the grievance.

In 2020-21, under a chosen best practice, the institute introduced online teaching and evaluation method to substitute examinations in pen and paper mode, as much as possible, in order to overcome the crisis precipitated by COVID-19.

In 2021-22, under a chosen best practice, the examination section introduced mandatory use of tools to calculate percentage attainment of course outcomes and map questions against course outcomes in all levels of examinations.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	GOVERNMENT COLLEGE OF ENGINEERING AND CERAMIC TECHNOLOGY
Address	Seventy three Abinash Chandra Banerjee Lane Belehata Kolkata Ten
City	Kolkata
State	West Bengal
Pin	700010
Website	gcect.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Krishnendu Chakrabarty	033-23633675		-	
IQAC / CIQA coordinator	Rituparno Sen	033-23632072	9831509654	-	rsen63@gmail.com

Status of the Institution	
Institution Status	Government

Type of Institution	
By Gender	Co-education
By Shift	Regular Day

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	

Date of Establishment, Prior to the Grant of 'Autonomy'	03-04-1941
Date of grant of 'Autonomy' to the College by UGC	17-08-2012

University to which the college is affiliated

State	University name	Document
West Bengal	Maulana Abul Kalam Azad University of Technology	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC	03-03-2011	View Document
12B of UGC	03-03-2011	View Document

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	15-05-2023	12	

Recognitions

Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

Location and Area of Campus

Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Seventy three Abinash Chandra Banerjee Lane Belegkata Kolkata Ten	Urban	2.53	7523.846

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Co course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BTech,Ceramic Technology	48	HIGHER SECONDARY	English	40	37
UG	BTech,Information Technology	48	HIGHER SECONDARY	English	40	40
UG	BTech,Computer Science And Engineering	48	HIGHER SECONDARY	English	40	40
PG	Mtech,Ceramic Technology	24	B.TECH	English	18	1
PG	Mtech,Information Technology	24	B.TECH	English	18	14

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	4				7				25			
Recruited	3	1	0	4	6	1	0	7	18	4	0	22
Yet to Recruit	0				0				3			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				35
Recruited	12	4	0	16
Yet to Recruit				19
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				1
Recruited	1	0	0	1
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	3	1	0	4	1	0	12	2	0	23
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	2	0	0	6	2	0	10
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties					
Number of Visiting/Guest Faculty engaged with the college?	Male		Female		Total
	0	0	0	0	0

Provide the Following Details of Students Enrolled in the College During the Current Academic Year

Self Study Report of GOVERNMENT COLLEGE OF ENGINEERING AND CERAMIC TECHNOLOGY

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	309	0	0	0	309
	Female	84	0	0	0	84
	Others	0	0	0	0	0
PG	Male	23	0	0	0	23
	Female	9	0	0	0	9
	Others	0	0	0	0	0
Certificate / Awareness	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Category		Year 1	Year 2	Year 3	Year 4
SC	Male	21	23	21	21
	Female	6	3	5	4
	Others	0	0	0	0
ST	Male	5	3	4	3
	Female	1	0	1	1
	Others	0	0	0	0
OBC	Male	15	22	4	8
	Female	8	6	1	0
	Others	0	0	0	0
General	Male	63	66	70	64
	Female	24	15	15	15
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		143	138	121	116

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Ceramic Technology	View Document
Computer Science And Engineering	View Document
Information Technology	View Document

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	The National Educational Policy was announced by the Government of India in the year 2020. The Government through the NEP would like to bring back the ancient system combined with the
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	<p>integration of modern technology and curb the commercialization of education in the country. This apart, promoting Indian Languages and protecting the culture and ethos of Indian values is one of the objectives of NEP. The vision of the Policy is to instill among the learners a deep-rooted pride in being Indian, not only in thought, but also in spirit, intellect, and deeds, as well as to develop knowledge, skills, values, and dispositions that support it. The institution believes in commitment to human rights, sustainable development and living, and global well-being, thereby reflecting a truly global citizen. The institution conducted a sensitization program of NEP-2020 with the resource person of NITTR-Kolkata. In the light of this, the institution has redesigned all its academic programmes to include Interdisciplinary courses as electives. All programmes are designed in such a way that students get maximum flexibility to choose elective courses offered by other Departments. It can be said that the institution is proactively working towards the implementation of the suggestions given in the NEP.</p>
<p>2. Academic bank of credits (ABC):</p>	<p>The establishment of the Academic Bank of Credits (ABC) is based on the National Academic Depository (NAD). In other words, it is the backbone of ABC where academic awards and information of students are stored. We may call it a digital bank of academics or a storehouse of academics. The NAD platform serves as a system for ABC that allows students to register and create an ABC ID, which can be used to store, transfer, redeem, and receive recognition for academic credits. Creating an Academic Bank of Credits account is essential for any student who wants to take advantage of this innovative system. By creating an account, students can track their progress, access their account information, and manage their credits online. To expand the ABC program, the following will be followed.</p> <ul style="list-style-type: none"> • Registration on ABC's official website. • Publish student credit data on a regular basis. • To include the link to the ABC URL on their website. • To assign a nodal officer to carry out the ABC process. • To inform the students to open an account on the ABC portal.
<p>3. Skill development:</p>	<p>The institute continuously identifies the gap between the current state of Learning Outcomes and what is required. Efforts are taken to bridge the gap. The institute ensures the inclusive and equitable quality of</p>

	<p>education for students for lifelong learning, more emphasis on skills and values-based courses in the curriculum. The Skill Enhancement Courses (SECs) are meant to improve the skill levels of the students in various domains such as cognitive skills, analytical skills, employable skills, transferable skills, and communication skills etc. A few examples are completion of final year project in the industry, internship , Digital Fluency, Health and Wellbeing, Environmental studies, Yoga, cultural activities etc. This newly adopted curriculum and the training imparted to students will help students to get fully trained to enhance their employability as per the industry's current human resources requirements. In this regard, the institution has signed a MOU with TCS to focus on industry-relevant skill development through the lens of domain-specific experts for students. On successful completion of certain courses, students can acquire skill which helps them showcase the 21st Century industry-relevant Technical, Professional, and Essential Skills that they have acquired. The NEP based curriculum expects more testing of higher-order cognitive skills, transferable skills etc. at various levels of degree programmes offered by the institution. The curriculum designed and implemented includes transferable skills which will be of value to the students not only during the academic study but in other contexts, such as during their working lives. These skills include interpersonal skills such as communication skills and teamwork; digital/computing skills; entrepreneurial skills; problem-solving skills; research skills; and self-management skills, time-management, work planning etc.</p>
<p>4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):</p>	<p>The Government College of Engineering & Ceramic Technology encourages learning of the national and regional languages. The institution is keen to provide an understanding of the cultural values permeated by the literary works in various languages. Further, Indian Ethos and Ethics in the curriculum of various programmes teach cultural values in Indian tradition so that the students imbibe value orientation in the subjects they study.</p>
<p>5. Focus on Outcome based education (OBE):</p>	<p>The Government College of Engineering and Ceramic Technology follows an approach of outcome-based education (OBE) system which inculcates the</p>

	<p>student-centered learning and teaching methodology. The Programme Educational Objectives (PEOs), Programme Outcomes (POs), Program Specific Outcome (PSOs) and Course Outcomes (COs) are carefully crafted catering to local, regional, and global needs and aligned with the national goals and institutional vision and mission. Graduate performance is measured in terms of knowledge, skills and attitude and ensures the overall development of the student giving due weightage during the measurement of Programme and Course Outcomes. The OBE framework guides the learning and teaching process within the institution and is embedded with the design and delivery of the programme to achieve the outcomes framed.</p>
<p>6. Distance education/online education:</p>	<p>Due to the pandemic, that hit the entire world, the institution had a very smooth transition from face-to-face learning to online learning. The institution also evidenced gradually that blended learning is more effective than traditional face to face learning. This may be for several reasons. Firstly, a blend of online and face to face learning gives learners the opportunity to see, interact with and understand the subject content in a variety of contexts. Secondly, online learning can be more personalized: it has the potential to allow learners to follow their own interests or learning pathways. Thirdly, today's students are digital natives who expect to learn via technology. They may sometimes find too much old-fashioned classroom teaching to be de-motivating. The institution adapted to online teaching through G-Suite. In addition, various Asynchronous learning activities through digital and live short videos on important topics were made available to students to provide the basic idea of the important concepts. The institution has conducted webinars, classes, and guest lectures via online mode not only during the pandemic but also it is continuing till date. For example, International women's day was celebrated via online mode. Various skill-building activities are offered online. Students are provided access to NPTEL and MOOCs wherein they can register for various courses and get the certification. Faculties are encouraged to offer online teaching along with normal classroom teaching which promote blended learning. The institution has procured license of Google work space to conduct online classes.</p>

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	The Electoral Literacy Club (ELC) has been set up in the institute.
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	The students' Co-ordinator and Co-ordinator faculty members are appointed by the institute. The ELCs are functional. The ELC is formed taking representing from all section of students.
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	There are three booths of election in the institute. These booths are used for Kolkata corporation election, Legislative Assembly election and Parliamentary election. Other than this these booths are used during correction of voter list. The members of the Electoral Literacy Club of the institute extend all co-operation to the voters. More over, there is a compulsory course on Indian Constitution, All students acquire knowledge about of voting right, election process etc.
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.	All member of the institute feel privileged for getting opportunity to have three election booths in the campus. The institute provides all sorts of logistic support so that all stake holders of the election booth carry out their responsibility smoothly.
5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.	The students above 18 years who are to be enrolled as voters are sensitized about democratic rights which include casting votes in elections. The student welfare association, the student body of the institute, are formed through voting process. Hence students of the institute are aware of election process and strength of the democracy.

Extended Profile

1 Students

1.1

Number of students on rolls year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
562	531	506	507	521
File Description		Document		
Institutional data in the prescribed format (data		View Document		

1.2

Number of final year outgoing students year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
130	117	122	122	130
File Description		Document		
Institutional data in the prescribed format (data		View Document		

2 Teachers

2.1

Number of full time teachers year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
33	34	34	34	33
File Description		Document		
Institutional data in the prescribed format		View Document		
Certified list of full time teachers		View Document		

2.2

Total number of full time teachers worked/working in the institution (without repeat count) during last five years:

Response: 35

File Description	Document
Institutional data in the prescribed format	View Document

3 Institution

3.1

Total expenditure excluding salary year wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
25.87647	42.78167	262.70698	91.86032	165.37981

Other Upload Files	
1	View Document

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

1.1.1

Curricula developed and implemented have relevance to the local, regional, national, and global developmental needs, which is reflected in the Programme outcomes (POs) and Course Outcomes(COs) of the Programmes offered by the institution

Response:

The development of an effective curriculum in Government College of Engineering and Ceramic Technology is a multi-step, dynamic process. The process starts from evaluating the existing curriculum in terms of its relevance in present context and achieving desired programme objectives like the need of local, regional, national and global development and employers. The need of higher education and entrepreneurship are also taken in to consideration. The curriculum of the institute is designed addressing the recent technologies

and the opportunities existing in the regional and global level. It also ensures that the students have the required domain knowledge, skills, and application aptitude.

Curriculum is designed and developed to ensure excellence in the quality in a systematic manner that provides a learner centric education to achieve the three specific objectives; Employment, Higher Education and Entrepreneurship, as per the following major steps:

Step-1: Faculty council of the institute prepares the draft curriculum based on

- Vision and Mission of the institute
- Program Educational Objectives
- Feedback collected from stakeholders (Industry experts, academia, alumni, students, parents)
- Conclusions drawn from analysis of attainment of COs, POs and PSOs
- Benchmarking of curriculum against same or similar program(s) run by leading educational institutions including IITs, NITs, Central, State and Foreign Universities, MOOCs, Digital learning platform and Sector Skill Council.
- Guidelines of AICTE and UGC

Step-2: Conduct departmental meeting to discuss the draft curriculum and recommend necessary changes.

Step-3: Conduct Board of Studies meeting to finalize the curriculum and syllabi. Experts of different reputed organizations act as external members of BOS.

Step-4: Hold post BoS meeting to ensure the incorporation of suggestions in curriculum and syllabi.

Step-5: Submit final curriculum for approval of Academic Council. The curriculum maintains a balance among various categories of courses from Science, Mathematics, Humanities and Management, Industry technology, Foundation, core, applied Engineering and Domain focused along with skill courses, MOOC courses, minor project and Internship components. Each course is a combination Theory, Practice, Project and complied with the curriculum for attaining the POs, PSOs and COs. An effective implementation of this Outcome Based Education (OBE) ensures that our graduating engineers have attained skills with global attributes as per the POs as defined by National Board of Accreditation to compete on a global platform. Specific to every program, Institute has Program Educational Objectives (PEOs) that are measured through performance of outgoing batches of graduate students. The Institute monitors the attainments of PEO, PO and PSO regularly.

The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal assessment. The students may acquire a minimum additional 20 credits by undertaking MOOCS through NPTEL to attain B. Tech. degree with honours. Further, summer training is made compulsory for all students to make them acquainted with the industrial practices and ethics. It is also mandatory for all students to carry out a project. In addition to the curriculum, students skills are upgraded by arranging various value-added courses conducted by Wipro and TCS with internal faculty mentors.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

1.1.2

The programmes offered by the institution focus on employability/ entrepreneurship/ skill development and their course syllabi are adequately revised to incorporate contemporary requirements

Response:

The institute with three engineering department, offers five programs, (three UG and two PG) with the focus on the skill development in the technological field. The programs of ceramic technology have a 100% placement record through campus placement each year. All three departments have the focus on generating maximum employability of the students and syllabus are revised to incorporate the ever-changing requirements of the industry.

The criteria of the syllabus modification are based on

1. Design and development of the curriculum as per standard decentralized bottom-up process taking inputs from different stakeholders that is faculty, students, alumni, employer in the form of feedback. The feedback are analysed in different forums including departmental meeting, BOS, AC, IQAC and GB.
2. All curricula have adequate flexibility in terms of offering elective courses and periodic revision for

updating the curriculum as per industry and market demand. Basket of electives are generated in the categories of professional electives (related to core paper of the department) and open electives (interdisciplinary subjects). Though syllabuses are revised generally at the interval of five to six years (as roll over time for the syllabus revision is 4 years), But elective baskets are flexible and can be changed in each year.

3. All Graduate Attributes like Program Educational Objectives (PEO), Program Objectives (PO), Course Objectives (CO) are embedded in the syllabus of the courses in different programs. In the Evaluation paper, the CO is clearly mentioned along with each question and students are well aware with the CO and ILO of the courses.

4. Courses are structured according to the Choice Based Credit System (CBCS) and Credit Transfer is allowed from the courses offered on the different online platforms like Swayam. They can earn extra 20 credits through MOOC courses and can earn Honours along with their regular B.Tech degree.

5. All programs have strong focus on honing of industry ready skill sets through internship and apprenticeship leading to enhanced employability. Summer internship is compulsory for the graduate students and there is a flexibility in final semester so that they can avail paid internship with the pre-placement facility.

6. Bridge courses, remedial courses and enrichment programs are made available to the learners. Based on the Midterm marks, students are identified as weak learner as well as advanced learner. There are special classes conducted to nurture advanced learners beyond their usual syllabus.

7. Concepts like social and environmental awareness, human values and ethics, technology development and life skills are included in the curriculum either as core courses or as open / free electives.

8. Curriculum delivery is entirely student centric with adoption of modern pedagogy such as flipped learning, co-learning, project based and experiential learning. Project work is compulsory for each students and stresses are given to include novelty and research acumen. Students are encouraged to publish their work in form of conference/ journal publication. Group Discussion, Paper and Poster presentation, short term projects in individual as well as group mode, field visits, study tours, seminars, workshops are strongly emphasized.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

1.2 Academic Flexibility

1.2.1

Percentage of new courses introduced out of the total number of courses across all programmes offered during the last five years

Response: 48.8

1.2.1.1 Number of new courses introduced during the last five years:

Response: 122

1.2.1.2 Consolidated number of courses offered by the institution across all Programmes (without repeat count) during the last five years :

Response: 250

File Description	Document
Subsequent Academic Council meeting extracts endorsing the decision of BOS	View Document
Minutes of Board of Studies meeting clearly specifying the syllabus approval of new courses	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.3 Curriculum Enrichment

1.3.1

Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020 into the Curriculum

Response:

Technological revolution and industrial progress (both manufacturing and service) with consequent economic growth are the core agenda of Government of India. In addition, eradication of poverty, unemployment and corruption; healthcare and sanitation; clean environment and development of basic infrastructure are other needs of the country.

Another very important responsibility of any educational institution is to inculcate human values in the students so that they finally become responsible citizens of the country. All these aspects have been taken care of in designing the various curricula of the College.

Syllabi Of the institute is designed focusing on the following issues:

1. All the courses are aimed at the overall development of the students as competent professionals with human values.
2. There is a mandatory course on ethics and human rights to inculcate human values among the students

for becoming responsible citizens.

3. The curriculum includes courses on environmental studies to create awareness among students about burning issues like global warming, pollution, conservation of natural resources etc.
4. To adopt fast changing global technology, several emergent core engineering topics are included in the course curriculum.
5. A state-of-the-art language laboratory has been set up to improve soft skills of the students to meet the national / international requirements.
6. To make the students aware of their rights and duties, a course on Indian constitution has been introduced in the curriculum. Gender Equality is taught in this course as well.
7. Cyber law and related ethics are introduced as a course in the curriculum of Information Technology and Computer science. As cyber applications are very common nowadays and different cyber-crimes take place, it is essential to know cyber ethics and protection against cybercrime.
8. Green computing, which reduces the consumption of power and saves the natural environment, are introduced into different courses like mobile computing, cloud computing and sensor network.
9. In the course of ceramic raw material, different eco-friendly methodologies are introduced. In the glass science course, the students are taught how to convert waste into wealth. In the course on Cement, Concrete & Monolithic Refractory, methods of Waste material utilization are taught.
10. Topics of Green energy resources are taught.

All the courses offered in both UG and PG levels are aimed at grooming a student with technological skill to address the needs of the society and are relevant to the development of the nation. Along with professional courses, topics on ethics, moral and human values are taken care of in the time of preparation of courses. Choice based credit systems are introduced into the curriculum using MOOC. Course Baskets are designed in such a manner so that not only professional courses are offered, but courses based on human value, professional ethics, environment sustainability are included in the curriculum.

As per National Education Policy 2020, the Academic Bank of Credits (ABC) has been envisaged to facilitate the academic mobility of students with "credit transfer" mechanism which was implemented as lateral entry in second year of program and departmental transfer after first year.

Choice Based Credit system (CBCS) has been introduced for awarding the credits towards the completion of course. The students will earn credits for the registered courses. Once the student acquires sufficient credit points he/she will be awarded with the relevant degree with honours.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

1.3.2

Number of certificate/value added courses/Diploma Programmes offered by the institutions and online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms (without repeat count) where the students of the institution have enrolled and successfully completed during the last five years.

Response: 123

File Description	Document
List of students and the attendance sheet for the above mentioned programs	View Document
Institutional programme brochure/notice for Certificate/Value added programs with course modules and outcomes	View Document
Institutional data in the prescribed format (data template)	View Document
Evidence of course completion, like course completion certificate etc	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.3.3

Percentage of programmes that have components of field projects / research projects / internships during the last five years.

Response: 100

1.3.3.1 Total Number of programmes that have components of field projects / research projects / internships (without repeat count) during the last five years

Response: 5

1.3.3.2 Total Number of programmes offered (without repeat count) during the last five years

Response: 5

File Description	Document
Sample Internship completion letter provided by host institutions	View Document
Sample Evaluated project report/field work report submitted by the students	View Document
Provide the relevant information in institutional website as part of public disclosure	View Document
Program and course contents having element of field projects / research projects / internships as approved by BOS	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.4 Feedback System

1.4.1

Structured feedback for curriculum and its transaction is regularly obtained from stakeholders like Students, Teachers, Employers, Alumni, Academic peers etc., and Feedback processes of the institution may be classified as follows:

Response: A. Feedback collected, analysed, action taken & communicated to the relevant bodies and feedback hosted on the institutional website

File Description	Document
Feedback analysis report submitted to appropriate bodies	View Document
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	View Document
Action taken report on the feedback analysis	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document
Link of institution's website where comprehensive feedback, its analytics and action taken report are hosted	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1

Enrolment percentage

Response: 82.49

2.1.1.1 Number of seats filled year wise during last five years (Only first year admissions to be considered)

2021-22	2020-21	2019-20	2018-19	2017-18
143	138	121	120	114

2.1.1.2 Number of sanctioned seats year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
147	156	156	156	156

File Description

Document

Provide the relevant information in institutional website as part of public disclosure

[View Document](#)

Institutional data in the prescribed format (data template)

[View Document](#)

Final admission list as published by the HEI and endorsed by the competent authority

[View Document](#)

Document relating to sanction of intake as approved by competent authority

[View Document](#)

Provide Links for any other relevant document to support the claim (if any)

[View Document](#)

2.1.2

Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

Response: 70.89

2.1.2.1 Number of actual students admitted from the reserved categories in the first year of the programme year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
37	29	33	29	23

2.1.2.2 Number of seats earmarked for reserved category as per GoI/State Govt. rule year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
41	43	43	43	43

File Description	Document
Provide the relevant information in institutional website as part of public disclosure	View Document
Institutional data in the prescribed format (data template)	View Document
Final admission list indicating the category as published by the HEI and endorsed by the competent authority.	View Document
Copy of the letter issued by the State govt. or Central Government Indicating the reserved categories(SC, ST, OBC, Divyangjan, etc.) to be considered as per the state rule (Translated copy in English to be provided as applicable)	View Document
Provide Links for any other relevant document to support the claim (if any	View Document

2.2 Catering to Student Diversity**2.2.1**

The institution assesses the learning levels of the students and organises special Programmes to cater to differential learning needs of the student

Response:

Diagnosing learners' abilities:

There are several methods of identifying slow learners and advanced learners.

Diagnostic tests are conducted during the Student Induction Programme in Mathematics, Physics, Chemistry and English. Based on the performance in these tests, student's abilities are identified.

Subject teacher through classroom interactions, identifies the strengths and weakness of individual students.

At the end of Mid Term I and Mid Term II examinations, department analyses the performances of the students and identifies learning level of the student.

Catering the needs of slow Learners:

- Slow learners are provided with the remedial classes and peer tutorials by subject experts, to overcome their difficulties in specific courses.
- The institute publishes the teacher mentor list for the students at the beginning of each semester. The teacher mentors are always in touch with the students to assess the academic progress of the student.
- Tutoring by peers and senior students:

The students of the institute have developed a technical club where they discuss about the cutting edge technologies. The seniors take the opportunity to share their learnings to the juniors. From the following link one can find the relevant videos where our student Sitam Sardar is taking a class for the juniors where Sitam is helping the juniors to make the first APP using the Kotlin.

<https://www.youtube.com/@gdscgcect1426/videos>

Many such event records can be found from the following link.

<https://github.com/orgs/ByteMonk-GCECT/repositories>

- Special class on the English Communication Skills are conducted for the students who are less proficient in English.
- Corrected assignments and answer scripts are shared with each student and discussed to enable students to recognize their weakness to improve.
- Faculty makes it a point to be patient and accessible to students personally, over the phone, mail, and social apps.
- Training and Placement Cell conducts grooming sessions and mock interviews for all students with special emphasis for slow learners to enhance their employability. Some of the online meeting links of such events are given for record.
- <http://meet.google.com/wvh-ybpq-bfh>
- <http://meet.google.com/jwi-cgzk-bdt>
- <http://meet.google.com/nib-dgnv-oom>

Catering the needs of advanced Learners:

- Advanced learners are encouraged to study additional reference books on the subject of study.

Gold, Silver and bronze medals are awarded to the toppers in the Graduate Day celebration to encourage them to perform better.

- Students are guided to take up additional courses viz. NPTEL courses, MOOCs, Programmes offered by the Google Developer Student Clubs.
- Advanced learners are exposed to new technologies after class hours, by encouraging them to participate in the research activities of the institution. The faculty facilitates students to publish their articles in renowned peer-reviewed journals such as Neuroscience Informatics, Book chapters of Springer.
- The advance learners are provided with training in Programming through internships in various companies of repute.
- Students are send to participate in Smart India Hackathon, CodeChef and other Coding contests, National and International Paper Presentations. Students are encouraged to participate in seminars, conferences and workshops to gain knowledge. As for example students participated in ISTE Chhatra Vishwakarma Awards-2018, All India seminar on Solid waste management, National conference, Mrittika 2.0, Engineering Fair 2018 held at BITM.
- Advanced learners are also advised to crystallize their ideas into a project, which might earn them funding from the Institution.

File Description	Document
Upload Any additional information	View Document
Provide link for additional information	View Document

2.2.2

Student - Full time teacher ratio (Data for the latest completed academic year)

Response: 17.03

File Description	Document
List showing the number of students in each of the programs for the latest completed academic year across all semesters	View Document
Certified list of full time teachers along with the departmental affiliation in the latest completed academic year.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.3 Teaching- Learning Process

2.3.1

Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experience and teachers use ICT- enabled tools including online resources for effective teaching and learning process

Response:

Student-centric methods: GCECT adopts student-centric teaching-learning methodologies for enhancing the learning experiences of students. The teaching- learning process in the institution consists of lectures, tutorials, practical sessions, projects, seminars, internships, industrial visits. The institution provides facilities like the internet, LCD projectors, multimedia tools etc. to facilitate the student-centric methods. Online platforms, software and app-based tools are also used to support the teaching-learning process. Classroom instruction using tablets is also being piloted in the institution. The details of experiential learning, participative learning and problem-solving methodologies adopted by the institute are given below.

1. Experiential learning:

1.1. Experiential learning is provided to the students in laboratory classes.

1.2 Students have to undertake project work as per the requirement of the curriculum. The project work stimulates students' interest in the subject and provides the student with an opportunity for freedom of thought and hands-on experiences.

1.3. Students are encouraged to participate in National and International Level competitions for real-life exposure.

1.4. Departments plan and organise industrial visits for students to provide exposure to industrial practices.

1.5. Students have to undertake internships after 6th semester of study which enables them experiential learning.

1.6. Visit to local places of importance like the Indian Museum, Birla Industrial & Technological Museum, Science City, Jorasanko Thakur Bari, Birla Planetarium etc. gives the scope of experiential learning.

1.7. GCECT organises Sky watching camp at regular intervals as a part of experiential learning.

1.8 Various items stored in the college museum also provide students to learn through real-life experience.

1.9. Invited lectures by eminent experts from industry and academia of repute are organized to supplement the teaching process and provide experiential learning.

2. Participative learning:

The students get involved in group activities while attending or organising laboratory classes, projects, seminars, group discussions, technical symposiums etc. Institute organizes different activities to promote the spirit of teamwork through NSS. The activities are tree plantation, health awareness camp, campaigning for road safety, water conservation, Swach Bharat. Self-defence programs like karate training are also arranged. Student welfare association also organises different programs like TechFest, CulturalFest, Hackathons etc to promote team spirit.

Links to the Seminars/Webinars organised for enhancing students’ learning experience:

- **Future Generation Computing and Applications:Cloud Computing::**
https://www.youtube.com/watch?v=-UecJx79H-I(=iqq4ZC8Fall)(=lHUSwoDBHGM)
- **Future Generation Computing and Applications:Smart Devices::***https://www.youtube.com/watch?v=i0MGA87lPnI*
- **ORIENTATION SESSION ON Entrepreneurship Development::***https://www.youtube.com/watch?v=O3YWD7dZKe0*
- **Creative, Effective, Efficient way of Excelling in JOB INTERVIEWS:***https://www.youtube.com/watch?v=Wuia3ZrwOQU*
- **Conference on Reconnecting, Restoring & Reinvigorating the GCECTian Spirits!:***https://www.youtube.com/watch?v=hMcUhmzTg2I(=ileHG9TG_yw)*
- **TEACHERS’ DAY CELEBRATION(2020):***https://www.youtube.com/watch?v=4114FEPm5xk*

3. Problem-solving methodologies:

3.1. Case studies: Students are given real-life problems to solve with their logical thinking and practical knowledge. Example, a group of students have developed the result management software and the CO-Mapping software of the institute.

3.2. Research activities are conducted in each department under the guidance of faculty where the students learn about the emerging areas which help them to inculcate the research acumen. Many research articles by our faculties alongwith our students as the first author of the article are published.

GCECT uses Information and Communication Technology (ICT) in education to support, enhance, and optimize the delivery of education.

File Description	Document
Upload any additional information	View Document
Provide Link for Additional Information	View Document

2.3.2

The institution adopts effective Mentor-Mentee Schemes to address academics and student-psychological issues

Response:

There is a difference in the academic environment of a school where students completed 10+2 education with that of a professional institute. The goal of a professional institute is to train the student with professional skill, develop their overall personality and make them employable. Many students of the institute are from rural areas and with diverse socio-economic backgrounds. As they are from rural areas, the environment of the institute is entirely new to them. Hence they face many difficulties in the course of their stay in the institute.

To overcome this situation, the institute has implemented Mentor Mentee Program to guide students. Mentoring provides students emotional and instrumental support, guidance, encouragement and better environment in the institute. A mentor plays a vital role in nurturing students and has a positive impact on students' persistence and academic achievement. A mentee can approach his / her mentor for both educational and personal guidance. It is conducted to help the students to strengthen their varied capabilities and to build an interpersonal relationship between the faculties and students.

Mentoring mentee program at the Government College of Engineering and Ceramic Technology is a structured programme in which each faculty is assigned with the task of mentoring about 8-10 students. First year students will have mentors from first year departments, when they move on to subsequent years they will be detached from the preceding mentors and attached to succeeding faculty from that particular department.

The mentor will perform the following functions. The list, of course, cannot be exclusive. A mentor can always do more for the benefit of the students.

Responsibilities of a Mentor

- Meet the group of students at least twice a month.
- To maintain personal details of the students including their address, contact numbers, overall academic performance and progress. It will help the mentor in monitoring the academic growth of the students.
- Continuously monitor, counsel, guide, and motivate the students in all academic matters.
- Advise students regarding choice of electives, projects, summer training, etc.
- Contact parents/guardians if the situation demands e.g. academic irregularities, negative behavioral changes, and interpersonal relations, detrimental activities, etc.
- Advise students in their career development/professional guidance.
- Maintain contact with the students even after their graduation.
- Intimate HOD and suggest if any administrative action is called for.
- Maintain a detailed progressive record of the student.
- Professional Guidance – regarding professional goals, selection of career, higher education.
- Career Advancement – regarding self-employment opportunities, entrepreneurship development, morale, honesty and integrity required for career growth
- Course work specific – regarding attendance and performance.

Responsibilities of a Mentee:

- Attend meeting regularly
- Fill personal information in the form at the time of joining the mentor- mentee system.
- Provide details of attendance, continuous assessment, examination, co-curricular, extra-curricular activities to the mentor whenever asked for.

- Repose confidence in the mentor and seek his/her advice whenever required.

The role of HOD:

- Meet all mentors of the department at least once a month to review the proper implementation of the system
- Advice mentors wherever necessary.
- Initiate administrative action on a student when necessary.
- Keep the head of the institute informed.

File Description	Document
Upload any additional information	View Document
List of Active mentors	View Document
Provide Link for Additional Information	View Document

2.3.3

Preparation and adherence of Academic Calendar and Teaching plans by the institution

Describe the Preparation and adherence to Academic Calendar and Teaching plans by the institution.

Response:

1. Preparation and Adherence of Academic Calendar:

- The institution prepares the academic calendar at the meeting of the Faculty Council at the beginning of each academic year.
- The academic calendar has schedule of commencement of classes, dates of Mid Term Examinations, filling of the examination form, End semester examinations and publication of examination results etc.

Web Links for the Academic Calendars

Academic calendar	Link
2021-22	https://gcct.ac.in/download/Miscellaneous/Academic-Calender.pdf
2020-21	https://gcct.ac.in/download/Miscellaneous/Academic-Calender-2021.pdf
2019-20	https://gcct.ac.in/download/Miscellaneous/Academic-Calender-2019-20.pdf
2018-19	
2017-18	

- The academic calendar is displayed on the website of the institute.
- It adheres to statutory Guidelines and ensures 90 working days for each semester.

- Thereafter, the timetable is prepared by the departments as per the academic calendar.
- Utmost care is taken to adhere to the academic calendar of the institute. This is evident from the Notice of examinations as per the academic calendar published.

2. Preparation and Adherence of Teaching Plan:

- The concerned faculties prepare teaching plans in the prescribed format for their respective subjects they teach. These plans are made at the beginning of the class and serve as a guideline for outcome-based teaching in the class. Teaching plan is monitored by the concerned HOD for proper and timely delivery. The contents of the plan include:
 - Course prerequisites
 - Course objectives and outcomes
 - Mapping of course outcomes with program outcomes
 - Learning resources
 - Delivery methodologies
 - Assessment methods
 - Detailed unit-wise lecture plan
 - Assignment and tutorial questions
 - Model question paper
 - Link to the video lectures
 - Additional information over and above the curriculum

The copies of the teaching plans are maintained in the department.

File Description	Document
Upload any additional information	View Document
Provide Link for Additional Information	View Document

2.4 Teacher Profile and Quality

2.4.1

Average percentage of full time teachers appointed against the number of sanctioned posts year wise during the last five years

Response: 93

2.4.1.1 Number of sanctioned posts year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
36	36	36	36	36

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts).	View Document
Provide the relevant information in institutional website as part of public disclosure	View Document
Institutional data in the prescribed format (data template merged with 2.4.3 and 2.4.4)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.4.2**Percentage of full time teachers with Ph.D./D.Sc. / D.Litt./ L.L.D during the last five years****Response:** 71.43**2.4.2.1 Number of full time teachers with *Ph.D./D.Sc. / D.Litt./ L.L.D* during the last five years**

Response: 25

File Description	Document
List of faculty having Ph.D./D.Sc. / D.Litt./ L.L.D along with particulars of the degree awarding university, subject and the year of award per academic year.	View Document
Institutional data in the prescribed format (data template merged with 3.2.3 and 3.4.2)	View Document
Copies of Ph.D./D.Sc. / D.Litt./ L.L.D awarded by UGC recognized universities	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.4.3**Average teaching experience of full time teachers (Data to be provided only for the latest completed academic year, in number of years)****Response:** 16.3**2.4.3.1 Total teaching experience of full-time teachers as of latest completed academic year**

Response: 538

File Description	Document
Institutional data in the prescribed format (data template merged with 2.4.1 and 2.4.4)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.4.4**Percentage of full time teachers working in the institution throughout during the last five years****Response:** 90.91**2.4.4.1 Number of full time teachers worked in the institution throughout during the last five years:**

Response: 30

File Description	Document
Institutional data in the prescribed format (data template merged with 2.4.1 and 2.4.3)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.5 Evaluation Process and Reforms**2.5.1****Average number of days from the date of last semester-end/ year- end examination till the last date of declaration of results during the last five years****Response:** 12.6**2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
13	11	11	16	12

File Description	Document
Result Sheet with date of publication	View Document
Policy document on Declaration of results (if any)	View Document
Institutional data in the prescribed format (data template)	View Document
Exam timetable released by the Controller of Examination	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.5.2

Percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 4.88

2.5.2.1 Number of complaints/grievances about evaluation year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	8	37	66

2.5.2.2 Number of students appeared in the examination conducted by the institution year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
455	462	459	444	454

File Description	Document
List of students who have applied for re-valuation/re-totaling program wise certified by the Controller of Examinations year-wise for the assessment period.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.5.3

IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA)/Formative Assessment have brought in considerable improvement in Examination Management System (EMS) of the Institution

Describe the examination reforms with reference to the following within a minimum of 500 words

- **Examination procedures**
- **Processes integrating IT**
- **Continuous internal assessment system**

Response:

The institute adopted reform in the examination system in 2018.

Examination procedures:

- Institute follows a semester system.
- Each discipline consists of the following three types of items: (a) Theory paper (b) Practical paper and (c) Sessional paper
- Pass marks for any paper is 50.
- Student has to secure at least 50 marks in each sessional paper, failing which he/ she would be debarred from sitting in the SEE.
- Theory papers have two components (a) Continuous Internal Evaluation (CIE) and (b) Semester End Examination (SEE).
- CIE consists of Mid Term I of 15 marks; Mid Term II 15 marks; classroom evaluation based on assignment, test based on assignment, surprise test, quizzes, presentations, attendance etc. on 20 marks.
- Two mid-terms are conducted centrally like SEE.
- Chance to sit for special mid-term in case of absence provided examination committee is satisfied with the plea for such prayer.
- SEE is conducted on 75 marks and 2/3rd weightage of it taken i.e. 50 Marks for the final reckoning.
- Paper setters are the subject teachers. Teachers submit 2 different sets of question papers to the COE, from which the COE would arbitrarily select any one set for the examination for that semester. Question paper is CO mapped and follows BLOOMS taxonomy.
- Supplementary examinations are held with the normal SEE for I/II/III year. Supplementary examination for both 7th and 8th semester are held within one month of publication of final semester examination results.
- Student is eligible to get B. Tech degree with Honours, if he/ she completes, an additional 20 credits.
- Viewing of the evaluated answer script to the student is one of the measures taken as a part of the transparency in the evaluation system.
- Strict adherence to the Institute academic calendar and timely publication of results.
- The CGPA of graduates and post graduates are notionally converted to percentage of marks by multiplying the CGPA by a factor of 10.

Processes integrating IT:

- Examination Management System services are available to integrate all the activities relating to Examinations of the Controller of Examination section.
- Institute has developed an in-house examination management system in which different activities such as filling of forms, admit card generation, linking of students with elective subjects, department transfer for students after completion of 2nd semester as per the university norms, uploading of marks, result preparation, transcript generation, grade card preparation, preparation of the excel file as per the template provided by the MAKAUT are done in IT enabled manner.
- High-end copier machines are used for question paper printing with 15000 pages per hour.

Continuous internal assessment system:

- Continuous internal assessment is done through conducting various tests from time to time. Two theory mid semester exams of 15 marks each and continuous class evaluation out of 20 marks comprises a total of 50 marks evaluation for any theory paper for B. Tech & M. Tech Programs.
- The mid term answer scripts are viewed to the students after completion of evaluation by the subject teacher. The students can discuss the problems with the subject teacher.
- The institute has changed student evaluation system from DGPA to CGPA system.

File Description	Document
Upload any additional information	View Document
Provide links as Additional Information	View Document

2.6 Student Performance and Learning Outcomes**2.6.1**

The institution has stated learning outcomes (programme and course outcome)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents and the attainment of the same are evaluated by the institution

Response:

Program outcomes (POs) are statements that describe what students are expected to know and be able to do upon graduating from the institute. As such, POs define the professional profile of an engineering graduate. All the programmes of the institute have twelve generic program outcomes (POs). These are in line with the Graduate Attributes as defined by the Washington Accord which ensure the attainment of graduate attributes. Before the commencement of any program, the graduate attributes are carefully articulated. In addition to this, program specific outcomes (PSO) which describe program specific requirements are carefully formulated. The PSOs are designed and extensively formulated by an academic team of the program during the designing of curriculum. The PSOs are approved by the Board of studies (BOS) formed by internal, external academic experts and industrial representatives to provide inputs and reinforcement. While designing the course outcomes, Bloom's taxonomy of educational

objectives and other resources are commonly followed across the institution addressing very crucial questions such as the career options after course completion, and routes by which students could showcase their knowledge. The program outcomes are trimmed into course outcomes to ensure applied, analytical and experimental learning, reflective and critical thinking.

All the courses of the programmes possess a set of course outcomes (COs) which are drafted by the faculty team handling the respective course at the stage of syllabus design. Course Outcomes are statements clearly describing the meaningful, observable and measurable knowledge and skills that students will acquire in the course.

COs are evaluated based on the performance of students in a Semester End examination and continuous evaluation (in the form of Mid Sem examination, assignments and quizzes). The contributions are 50% for continuous evaluation and 50% for Semester End examination respectively.

However, during lockdown period due to COVID-19, the regular pattern of examination couldn't be possible and alternative evaluation schemes were adopted.

For assessing the course outcomes (CO), both direct and indirect assessments methods are considered.

Direct assessment consists of Mid Sem examination, End Semester examination, quizzes and assignments. Marks obtained by students in these examinations are used to assess the CO attainment. For Indirect assessment, course outcome surveys are carried out at the end of a course and the results are analyzed. The record for all the internal assessments is maintained by the faculty and the department.

The program outcomes are achieved through curriculum that offers a number of mandatory courses as well as elective courses. Each course has defined course outcomes that are mapped to the program outcomes and program specific outcomes.

The Course Outcomes are mapped to the Program Outcomes and Program Specific Outcomes with three levels of attainment, viz.

1. Strongly Related, having a weightage of 3
2. Moderately Related, having a weightage of 2
3. Weakly Related, having a weightage of 1

Program Articulation Matrix is formed by the strength of correlation of COs with POs and PSOs.

There is a predefined set of Course Outcome attainment levels for all courses. The attainment of Course Outcomes of all courses with respect to set attainment levels is recorded.

Finally, overall PO/PSO attainment values are computed by adding direct and indirect PO attainment values. Indirect assessment is done through program exit survey, alumni survey and employer survey.

File Description	Document
Upload POs and COs for all courses (exemplars from Glossary)	View Document
Upload any additional information	View Document
Provide links as Additional Information	View Document

2.6.2

Pass percentage of students (excluding backlog students) (Data for the latest completed academic year)

Response: 100

2.6.2.1 Total number of final year students who passed the examination conducted by Institution during the latest completed academic year:

Response: 130

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Certified report from the COE indicating the pass percentage of students of the final year (final semester) eligible for the degree program-wise / year wise	View Document
Annual report of Controller of Examinations (COE) highlighting the pass percentage of final year students	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.7 Student Satisfaction Survey**2.7.1**

Online student satisfaction survey regarding teaching learning process

Response: 3.79

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

3.1.1

The institution's research facilities are frequently updated and there are well defined policy for promotion of research which is uploaded on the institutional website and implemented

Response:

The Institutes's Research facilities are frequently updated and there is well defined policy for promotion of research which is uploaded on the institutional website and implemented. The institute provides all necessary infrastructural facilities and a conducive environment to promote research activity in the campus. Due to limited resources, the institute may not be able to fund all the research activities taken up by the faculty and students. The Faculties are encouraged to apply for various funding agencies and pursue their research. The students are encouraged to undertake project work that can lead to publication. The expenditure for the same are borne by the institute. The students are also provided with financial assistance to present their papers in conferences. If a faculty wishes to purchase equipment for his/her research work, a requisition is forwarded and purchase is made following the purchase procedure of the institute as per Govt. norms.

The facilities of the laboratories are upgraded frequently to facilitate the research activities of the faculties and students. The institute takes care of the patent filing process, which is governed by the Research policy of the institute.

The research policy of the institute is intended to provide a multidisciplinary platform to initiate scholarly research with the following objectives:

- To create and promote a culture of research among the faculty and scholars of GCECT.
- To identify research areas and research topics of academic, applicable and socially relevant significance.
- To organize seminars/conferences/workshops on research topics and training programmes in research methodology.
- To ensure quality, integrity and ethics in research.
- To publish research material in appropriate media and to make available such published information to the end users.
- To facilitate the publication of reports submitted by the research scholars.
- To bring about an annual/periodic compendium (A quarterly journal ``Scientific Voyage'' has been published since February 2015) of abstracts/papers presented by the faculties and scholars in various seminars / conferences / workshops.
- To serve as a facilitator providing professional guidance, technical support and recommendation for financial assistance.

The institute affirms the following principles concerning research:

- Individual research scholars are free to select the subject matter of their research, to seek support from any legal financial source for their work, and to arrive at their own findings and conclusions.

These findings and conclusions should be available for scrutiny and criticism of peers.

- Research techniques should not violate established professional ethics pertaining to the health, safety, privacy, and other personal rights of human beings or to the infliction of injury or pain on animals.
- The Institute should create an environment conducive to research by providing suitable infrastructural facilities such as space, library, lab facilities, and funding if available, based on the educational merit of the proposed research.
- There is a committee to monitor and to formulate the policy of research in the institute. The Research committee (RC) takes care of various issues of research including ethical matters. The committee comprises of faculties of the institute and external experts.

The institute facilitates the participation of the faculty members and students in seminars, conferences, workshops, etc. It also helps in conducting departmental Seminars and community outreach programmes as well.

File Description	Document
Upload any additional information	View Document
Provide links as Additional Information	View Document

3.1.2

The institution provides seed money to its teachers for research

Response: 82.68

3.1.2.1 Amount of seed money provided by institution to its teachers for research year wise during last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	43.37532	32.34630	6.96200

File Description	Document
Sanction letters of seed money to the teachers is mandatory	View Document
List of faculty who have been provided with seed money for research along with the title of the project, duration and amount year-wise	View Document
Institutional data in the prescribed format (data template)	View Document
Audited Income-Expenditure statement highlighting the expenditure towards seed money endorsed by the Finance Officer	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.1.3

Percentage of teachers receiving national/ international fellowship/financial support by various agencies for advanced studies/ research during the last five years

Response: 2.86

3.1.3.1 Number of teachers who received national/international fellowship /financial support by various agencies, for advanced studies / research; year-wise during the last five years

Response: 1

File Description	Document
List of teachers who have received the awards along with nature of award, the awarding agency etc.	View Document
Institutional data in the prescribed format (data template)	View Document
E-copies of the award letters of the teachers	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.2 Resource Mobilization for Research**3.2.1**

Total Grants research funding received by the institution and its faculties through Government

and non-government sources such as industry, corporate houses, international bodies for research project, endowment research chairs during the last five years (INR in Lakhs)

Response: 177.62980

File Description	Document
List of Extramural funding received for research, Endowment Research Chairs received during the last five years along with the nature of award, the awarding agency and the amount	View Document
Institutional data in the prescribed format (data template is merged with 3.2.2)	View Document
Copies of the letters of award for research, endowments, Chairs sponsored by non-government sources	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.2.2

Number of research projects per teacher funded by government, non-government , industry, corporate houses, international bodies during the last five years

Response: 0.43

3.2.2.1 Number of research projects funded by government and non-government agencies during the last five years.

Response: 15

File Description	Document
List of project titles with details of Principal Investigator, amount sanctioned and sanctioning agency etc	View Document
Institutional data in the prescribed format (data template merged with 3.2.1)	View Document
Copies of the grant award letters for research projects sponsored by government agencies	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.2.3

Percentage of teachers recognised as research guides as in the latest completed academic year**Response:** 33.33**3.2.3.1 Number of teachers recognised as research guides as in the latest completed academic year:**

Response: 11

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	View Document
Institutional data in the prescribed format (data template merged with 2.4.2 and 3.4.2)	View Document

3.3 Innovation Ecosystem**3.3.1**

Institution has created an ecosystem for innovations, Indian Knowledge System (IKS), including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident

Response:

The Institute has created an ecosystem for Research and Innovation by

- (i) developing desirable human resources,
- (ii) taking initiative for the creation and dissemination of knowledge and
- (iii) establishing state-of-the-art infrastructure:

The institute has a focus on an ecosystem for innovations, creations and transfer of knowledge. A Centre of research has been established in the institute. Members of faculties are encouraged to put forward their research proposal. Faculties are also encouraged to receive grants from different funding agencies. The outcome of the same is evident from the following:

Dr. B. K. Sanfui, Asst. Professor of Ceramic Technology and his groups have fully concentrated upon development of advance engineering materials like ceramic membranes for the separation of CO₂ from flue gas as well as value added products like light weight building bricks prepared from agricultural waste, and abrasion resistant ceramics from industrial waste etc. Dr. Sanfui and his groups have also successfully characterized and developed four types of zirconia powders supplied by IREL namely

- (1) 3.5 mole % Ytria stabilized zirconia powder (3YSZ),
- (2) 8 mole% Ytria stabilized zirconia powder (8YSZ),

(3) 9 mole % Magnesia stabilized zirconia powder (9MSZ) and

(4) 12 mole% Ceria stabilized zirconia powder (12CSZ) and their respective products for structural as well as advance engineering applications.

Dr. Sanfui also filed application for granting two patents for his newly developed products and a few are under preparation.

1. Enhancement of thermal oxidation resistance properties of MWCNTs by MgAl-Binary oxide coating and its preparation thereof, Indian Patent, Application number 202131045889

2. A novel process for the production of high strength light weight construction material using rice husk ash and Portland cement, Indian Patent, Application number 202231002572

3. An energy efficient process for the production of magnesium aluminate spinel ceramic, Indian Patent, Application number 202131017942.

4. Chemically modified jute fiber reinforced high strength concrete and process thereof, Application no. 425/KOL/2011 granted on 02/11/2021

His laboratory developed product coal ash-based abrasion resistant ceramics got wide publicity in DD News (<https://ddnews.gov.in/national/industrially-important-ceramic-products-bottom-ash-thermal-plants-may-reduce-waste-worries>). It was also highlighted in the leading newspaper “The Hindu-Business line” (<https://www.thehindubusinessline.com/specials/ceramics-from-ash/article33372248.ece>).

The institute has an IPR cell to fulfil the following objectives:

- To create an awareness about IPR for faculties and students.
- To impart training on future endeavors regarding patent filing processes.
- To conduct workshops, seminars and training course on IPR.
- To create an opportunity for Product development and Commercialization.

Incubation center:

The Government of India has set up the Atal Innovation Mission (AIM) at NITI Aayog. The purpose of this Mission is to promote a culture of innovation and entrepreneurship in India. Accordingly, AIM supports the establishment of Atal Incubation Centres (AICs) that would nurture innovative start-up businesses in their pursuit to become scalable and sustainable enterprises. The institute is in a process of setting up AIC. Moreover, the institute gets assistance from EKTA Incubation center of affiliating university MAKAUT.

Indian Knowledge System:

Indian Knowledge System encompasses all of the systematized disciplines of Knowledge which were developed to a high degree of sophistication in India from ancient times.

The institute arranges visit to Indian Museum to acquaint students with Indian Knowledge system. Yoga training camps are held regularly. There is a Sky watching club in the institute. Regular events of

Sky watching club also sensitize students in this direction.

File Description	Document
Upload any additional information	View Document
Link for Any other additional information	View Document

3.4 Research Publications and Awards

3.4.1

The Institution ensures implementation of its stated Code of Ethics for research.

The institution has a stated Code of Ethics for research and the implementation of which is ensured through the following:

- 1. Inclusion of research ethics in the research methodology course work**
- 2. Presence of institutional Ethics committee (Animal, Chemical, Bio-ethics etc.)**
- 3. Plagiarism check through software**
- 4. Research Advisory Committee**

Response: A. All of the above

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Copy of the syllabus of the research methodology course work to indicate if research ethics is included	View Document
Constitution of the ethics committee and its proceedings as approved by the appropriate body	View Document
Constitution of research advisory committee and its proceedings as approved by the appropriate body.	View Document
Bills of purchase of licensed plagiarism check software in the name of the HEI	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.4.2

Number of candidates registered for Ph.D per teacher during the last five years

Response: 1.36

3.4.2.1 Number of candidates registered for Ph.D during the last 5 years:

Response: 15

File Description	Document
Ph.D. registration letters/Joining reports of candidates.	View Document
Letter from the university indicating name of the Ph.D. student with title of the doctoral study and the name of the guide.	View Document
Institutional data in the prescribed format (data template merged with 2.4.2 and 3.2.3)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.4.3

Number of research papers published per teacher in the Journals as notified on UGC CARE list during the last five years

Response: 5.06

3.4.3.1 Number of research papers in the Journals notified on UGC CARE list year wise during the last five years

Response: 177

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Link to the uploaded papers, the first page/full paper (with author and affiliation details) on the institutional website	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document
Links to the paper published in journals listed in UGC CARE list	View Document
Link re-directing to journal source-cite website in case of digital journals	View Document

3.4.4

Number of books and chapters in edited volumes published per teacher during the last five years

Response: 0.71

3.4.4.1 Total Number of books and chapters in edited volumes published during the last five years

Response: 25

File Description	Document
List of chapter/book along with the links redirecting to the source website	View Document
Institutional data in the prescribed format (data template)	View Document
Copy of the Cover page, content page and first page of the publication indicating ISBN number and year of publication for books/chapters	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.4.5

Bibliometrics of the publications during the last five years based on average Citation index in Scopus/ Web of Science

Response: 8.67

File Description	Document
Bibliometrics of the publications during the last five years	View Document
Any additional information	View Document

3.4.6

Bibliometrics of the publications during the last five years based on Scopus/ Web of Science – h-index of the Institution

Response: 20.5

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document
Any additional information	View Document

3.5 Consultancy

3.5.1

Revenue generated from consultancy and corporate training during the last five years

Response: 15.77

3.5.1.1 Total Amount generated from consultancy and corporate training year wise during last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	15.77393

File Description	Document
Letter from the corporate to whom training was imparted along with the fee paid.	View Document
Letter from the beneficiary of the consultancy along with details of the consultancy fee	View Document
Institutional data in the prescribed format (data template)	View Document
CA certified copy of statement of accounts as attested by head of the institution	View Document
Audited statements of accounts indicating the revenue generated through corporate training/consultancy.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.6 Extension Activities

3.6.1

Outcomes of extension activities in the neighbourhood community in terms of impact and sensitizing the students to social issues and holistic development, and awards received if any during the last five years (Showcase at least four case studies to the peer team)

Describe the impact of extension activities in sensitising students to social issues and holistic development with four case studies within a maximum of 500 words

Response:

The Government College of Engineering and Ceramic Technology organizes various extension activities with a dual objective of not only sensitizing the students about various social issues but also contribute to the community and strengthen community participation.

Initiatives with four case studies as described below:

Case Study 1: Swachh Bharat Summer Internship Program

In order to spread awareness on swachhata, Ministry of Drinking & Sanitation and Ministry of Human Resource Development launched this program (50 hours) in summer 2018. NSS volunteers of this college participated in the program and worked in the locality of Mahisbathan (2) Gram Panchayat of North 24-Parganas District. The volunteers created awareness among the local people and school children by

- i) Door-to-door campaigning.
- ii) Wall painting for creating awareness on swachhata.
- iii) Video lecture at Primary School, documentary films etc.
- iv) Cleaning Roads and Parks etc.

Outcome- At the end of the program when chocolate was distributed to the school children, it had been observed that the children were motivated on swachhata and did not throw any foil of the chocolates on the floor or outside the windows. They brought a waste bin from other room and put the foils into the waste bin after the consumption of the chocolates.

The NSS Student Volunteers were also sensitised at the end of that Swachh Bharat Summer Internship Program in 2018 and applied in their own life. One day, when NSS Program Officer purchased some sweets for the NSS Volunteers, the shop owner delivered the sweet packets in a plastic bag. Miss Sneha Tiwari, A NSS volunteer, returned the plastic packet to the shop-keeper.

Case Study 2: Save Water Program

NSS volunteers conducted various programs in the community to save water by

- i) Conducting survey in the locality to check the working status of the municipal water tap valves and reporting to the authority for replacing the defective water taps/valves.

ii) NSS volunteers conducted “Save Water Rally” on 23.07.2019 in the locality for the awareness of common people on water savings.

Outcome: Community people as well as NSS Student Volunteers have also been motivated for saving water in their real life. NSS Unit has fixed “Don’t Waste Water” sticker besides the water taps in the College.

Case Study 3: Self Defence Program

NSS Unit conducted Self Defence Training for the students and especially for the girl students as well as community girls regularly and also arranged Belt Grading Exams regularly twice a year (June and December). Two community girls were awarded Gold-Medals during Inter School Tournament on 20.01.2019. NSS Volunteers also demonstrated Karate-Show at West Bengal State University on 16.08.2018 to motivate the girl students to join Self Defence Training.

Outcome:

1. Many students and especially girl students of West Bengal State University have been motivated by the Karate Show for joining Self Defence Training Program.
2. NSS Volunteers of GCECT who joined Karate Training Program learned self defence.

Case Study 4: Tree Plantation and Environmental Awareness Program

NSS Volunteers organised tree plantation drive on various occasions like 15th August, 5th June (World Environment day). NSS Unit of GCECT also organised an Environmental Awareness Rally on 26th April 2022 in the locality.

Outcome:

1. An awareness has been created to protect mother Earth.
2. Faculty, Staff and students have started planting trees at their home or at the location available to them to protect environment.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

3.6.2

Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community year wise during the last five years

Response: 98

3.6.2.1 Number of extension and outreach programs conducted by the institution through

organized forums including NSS/NCC with involvement of community year wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
3	3	49	23	20

File Description	Document
Photographs and any other supporting document of relevance should have proper captions and dates.	View Document
Institutional data in the prescribed format (data template)	View Document
Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.7 Collaboration

3.7.1

Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years

Response: 192

File Description	Document
Summary of the functional MoUs/linkage/collaboration indicating start date, end date, nature of collaboration etc	View Document
List of year wise activities and exchange should be provided	View Document
List and Copies of documents indicating the functional MoUs/linkage/collaborations activity-wise and year-wise	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1

The Institution has adequate infrastructure and other facilities for

- 1. teaching – learning, viz., classrooms, laboratories, computing equipment etc**
- 2. ICT – enabled facilities such as smart class, LMS etc.**
- 3. Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc.**

Response:

Teaching learning:

- Well ventilated and illuminating class rooms for conducting lectures and tutorials for students. Classrooms are provided with curtains, LCD projector, computer, internet facility, podium with sound system, CCTV, wide black board and white board.
- Air conditioned seminar and conference rooms with LCD projector, sound system, and proper sitting facility are available for hosting the technical seminars, workshops and conferences etc.
- All laboratories are well equipped and maintained so that students can carry out both curriculum-related and research-related activities. Each laboratory is equipped with the state of the art instruments and high-speed internet facility.
- The institute has air conditioned Language Laboratory with proper facilities so that students can improve their English communication skills.
- Central Computing facilities for campus recruitment process.

Some important laboratories are mentioned below-

Ceramic technology:

- Refractory, Cement & Concrete, Unit Operation, White ware, Glass, Coating, Instrumental Analysis, Nano Materials and Sol-gel, Energy Engineering, Thin Film, Project, Physical Testing

Computer Science and Engineering / Information Technology:

- Basic Computing, System Administration, Object Technology, Digital Electronics, Microprocessor ,Communication Engineering, Distributed Computing, Physics, Chemistry, Engineering Drawing, Modern English Language, Central Computing

Basic Sciences and Engineering:

- Basic Electronics, Mechanical Workshop, Electrical Engineering
- Advanced laboratories are set up using grants from National Funding Agencies. VLSI Lab, Image Processing & GIS Lab, Image Processing & Computer Vision Lab.
- The laboratories provide state-of-the-art computing facilities. More than 250 computers with internet connections are available in the laboratories.

The institute has some specialized instruments/equipment for advanced study/research and these are mentioned below-

- Nano Particle Size Analyser, Sedigraph Fully automatic Micro-hardness tester, Horizontal Dilatometer, High Temperature Viscometer, Lanmuir-Blodget Thin film Apparatus, Spin and Dip Coater, Furnace(Spectro Photometer & pc control), Fully Computer Controlled high precision compressive strength testing machines, Non destructive elastic property analyzer, ERDAS Imagine Professional, ENVI, IGIS, IDL, Virtual GIS, Multisim, VSLI Design Toolset Amplifier, ISILS Software for Language Lab, Operating System Winpro.

ICT – enabled facilities such as smart class, LMS etc.

- The institute has 5 air conditioned smart class rooms with smart board, internet facility, sound system and seating arrangement.
- Learning Management Systems (LMS) is available in the institute. A customised learning management software with modules for Admission, Class time table, attendance monitoring and examination related activities procured by the institute.
- The institute conducts online classes with licensed G-Suite. In Google Classroom teachers can deliver online resources such as videos, articles and sites to their students directly. Data can be collected from online learners, making it easy to receive learner feedback and personal information that can be used to improve the overall e-Learning experience. The recording facility of lectures helps students to go through beyond the class hours.

Facilities for Cultural and sports activities

- Facilities for outdoor and indoor sports and games that include badminton, volleyball, basketball, carrom, table tennis and chess
- Gymnasium with cycling, treadmill and weight lifting facilities.
- Dedicated yoga/karate room for hosting the different yoga/karate training/events on a regular basis
- Air-conditioned indoor auditorium with 250 seating capacity is used for organising the different cultural events, seminars and get together.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

4.1.2

Percentage of expenditure excluding salary, for infrastructure development and augmentation year wise during the last five years

Response: 40.72

4.1.2.1 Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
1.10035	1.26347	180.46984	49.01441	7.83454

File Description	Document
Institutional data in the prescribed format (data template is merged with 4.2.2 and 4.4.1)	View Document
Audited income and expenditure statement of the institution to be signed by CA and counter signed by the competent authority (relevant expenditure claimed for infrastructure augmentation should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.2 Library as a Learning Resource**4.2.1**

Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students

Response:

The Library is automated with Koha Integrated Library Management System (ILMS). Previously library was automated with Libsys. Koha, open source software, has been customised as per need of the

institute. Koha is a true enterprise-class ILS with comprehensive functionality. Features of Koha are as follows:

1. Online Public Access Catalogue (OPAC) module which provides a simple and clear interface for library users to perform tasks such as searching and reserving items and suggesting new items.
2. Full catalogue module enables library staff to capture details of all library items. It is MARC and z39.50 compliant, data entry and exchange will be greatly simplified.
3. Circulation module which fully automates borrowing and item management, integrating with the OPAC so users can see which items they have outstanding.
4. Acquisitions module assists librarians with both acquisitions and more generally with budget management.

The issue- return of books and access to the library is automated with RFID technology. Radio Frequency Identification (RFID) provides basic components to create a degree of automation in libraries. More and more libraries are adopting RFID systems for automation and security needs. The use of RFID reduces the amount of time required to perform basic library operations like issue and return of the items. RFID also ensures that the processing is faster as compared to a barcode based system because there is no line of sight required in case of RFID system and also multiple items can be read in one go. This also helps in faster stock taking and inventory operations using a suitable hand held reader. Using RFID gates at the library exit, it is also possible to partially bring down the cases of unintentional book removals from the library.

There are 16771 books in the library. Adequate subscriptions to e-resources and journals are made. Currently it has been subscribing 15,775 e-journals, 31, 69,492 e-books, and many e-magazines, video lectures, e-newsletters, case reports, e-newspapers and conference proceedings including IEEE journals. The library is a member of N-LIST (National Library and Information Services Infrastructure of Scholarly Content), NDL and DELNET. DELNET provides access to more than one crore and fifty lakh e-resources. It has subscribed to the E-Resources such as 'IEEE-ASPP' E-Journals. The campus wide access and as well as Remote Access of library resources such as NPTEL & multimedia videos are available for the users.

There is a newly renovated air conditioned reading room for the users of the library. Each student can borrow 5 books for a period of one month. Faculty of the institute can borrow any number of books. There are numbers of computers placed in the reading room. The user of the library can access E-content in the reading room as well as from other locations based on cloud technology in addition to normal reading of text books, reference books, magazine etc. As the library has rare collection of books of Ceramic Technology, learners from other institute from the state and outside the state visit the library. The library is optimally used by the faculty and students

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

4.2.2

Percentage of expenditure for purchase of books/ e-books and subscription to journals/e-journals year wise during the last five years

Response: 3.07

4.2.2.1 Expenditure for purchase of books / e-books and subscription to journals/e-journals year wise during last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
.94673	2.30099	14.85054	0	0

File Description	Document
Institutional data in the prescribed format (data template merged with 4.1.2 and 4.4.1)	View Document
Audited income and expenditure statement of the institution to be signed by CA and counter signed by the competent authority (relevant expenditure claimed for purchase of books/ e-books and subscription to journals/e-journals should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.3 IT Infrastructure**4.3.1**

Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection

Describe IT facilities including Wi-Fi with date and nature of updation, available internet

bandwidth within a maximum of 500 words**Response:**

The institute has both wired and Wi-Fi internet connections with 100 mbps bandwidth (provided by NKN). In this context, it is to be noted that, there is no such distribution of bandwidths between wired and wireless networks and the whole bandwidth is available for both of them. The cyber security issues of the institute mainly based on a proxy server and an application level firewall. Moreover, the institute takes proper initiatives for updating and maintaining these IT infrastructures. Importantly, this maintenance process is need based, where the institute places the requisition to the Higher Education Department, Govt of West Bengal and after proper approval, the work is executed as per the West Bengal Govt. financial rules by utilizing the state govt. allotted budget.

The updated IT network of the institute is described below:

The IT policies adopted in the institute for procurement, maintenance and augmentation of computational and network facilities including Wi-Fi and cyber security aspects are attached in the additional information section below.

There are different IT facilities available in the college viz. smart Classrooms, digitally equipped conference halls, seminar halls and laboratories. Well equipped computer laboratories are also functioning in the institute. The college buildings and the library are facilitated with the internet connectivity. The Wi-Fi facility is also extended to the newly constructed hostel building . All the departments of the institute are provided with computer and other related accessories. All teaching staff member use the ICT in the classrooms and laboratories, whenever needed. Most of the official work is being done with the help of ICT. The college regularly maintains and upgrades the IT facilities.

The computers in the laboratories have been upgraded with higher version of hardware to support the recent softwares. In session 2015-16, 60 new desktop systems (I3 processor, 4 GB RAM, 250 GB HDD) purchased to upgrade computer labs. There are projectors installed in different classrooms. To maintain computer laboratories, regular purchasing of mouse/RAM and other hardware components were also done. Anti-virus is regularly installed in computer. All computers has anti-virus. Wi-Fi connectivity is available in different locations of the institute. CCTV is installed in every classroom. Website is maintained by a third party. Network committee regularly monitors and updates IT infrastructure and network facilities available in the institute as an when required.

Library:

The IT facility of the library of the institute has also been upgraded. The Library of the institute is automated with Koha Integrated Library Management System (ILMS). Previously the library was automated with Libsys. The issue- return of books and access to the library is automated with RFID technology. The use of RFID reduces the amount of time required to perform basic library operations like issue and return of the items. RFID also ensures that the processing is faster as compared to a barcode based system because there is no line of sight required in case of RFID system and also multiple items can be read in one go. This also helps in faster stock taking and inventory operations using a suitable hand held reader. Using RFID gates at the library exit, it is also possible to partially bring down

the cases of unintentional book removals from the library.

Intercom Facility: The campus is well connected with a well planned Telecom Network with intercom facilities.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

4.3.2

Student - Computer ratio (Data for the latest completed academic year)

Response: 2.18

4.3.2.1 Number of computers available for students' usage during the latest completed academic year:

Response: 258

File Description	Document
Purchased Bills/Copies highlighting the number of computers purchased	View Document
Extracts stock register/ highlighting the computers issued to respective departments for student's usage.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.3.3

Institution has dedicated audio visual centre, mixing equipment, editing facility, media studio, lecture capturing system(LCS) and related hardware and software for e-content development

Response:

Development of Technology has brought an opportunity to students to access E-learning resources. This may be lectures of eminent faculty of a reputed institute or from the same institute on a topic of current technology or on a contemporary issue. The faculty of the institute also involved in E-content development with the help of different techniques.

Lectures capture system:

As online education and video-centric content continues to rise, lecture captures have become essential for academic institutions. By capturing and archiving lectures, institutions can provide students with the flexibility to learn at their own pace and ensure that valuable knowledge is not lost.

The institute has procured licenses for Google Workspace for Education for teaching and learning process to conduct classes in online mode. The Lecture Capturing System (LCS), in build in Google work space, is used by the faculties to prepare E-content for the students as a part of digital transformation to enhance the learning experience of the students and to revamp the teaching style of the faculty to offer better contextual and relevant content.

Students can access their education content anytime, anywhere and can learn at their own pace. Some students need to hear information more than once. Others get new information that recontextualizes earlier material, and need to go back and get everything to fit. It is easy for the students to watch as many times as they need to. They can even watch the video at a slower/faster pace if they want. The institute has a repository of lectures delivered by the faculties and developed by Lecture Capturing system using Google work space.

Audio visual centre:

Language laboratory is an audio-visual installation used in modern teaching methods to learn the foreign languages. It is a technological breakthrough for imparting skills in English. The lab offers an exclusive result oriented and efficient way to enrich the English language learning process.

The institute can boast of a Language Laboratory which is managed and operated by the Department of English. This Laboratory is of particular use to the students pursuing the Communicative English.

Major Benefits of our Language Lab:

- **Auditory Oriented:** The direct sound transmission helps the students to follow the teacher's instructions with clarity and ease.
- **Focussed Guidance:** It is easy to guide the groups by monitoring each student independently without disturbing the others students.
- **Scope for self evaluation:** The students can do a periodical self evaluation to measure their progress as well as evaluate their language skill with that of the expert.
- **Independent learning:** Access to resources beyond the timetable encourages independent learning.
- **Overcome the fear:** The automated learning environment removes one's fear and creates a happy learning situation.
- **Medium of interactivity:** The students can record their own voice and play back the recordings, interact with each other and the teacher, and store the results.

The audio visual centre has inbuilt Audio-visual facility. The Centre is designed to encourage collaborative learning & has the resources for developing e-content.

The infrastructure includes:

- Dedicated PC for designing & editing,
- Sony HDRCX405 9.2MP HD Handycam Camcorder
- E Image camera support tripod with fishplate and Tripod Bag
- Audio Suite for NLE
- NLE suite
- Segate HDD desktop
- LG 164 (65 inches) 4K Ultra HD Smart LED TV
- Cordless MIC BY-WFM12

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1

Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years

Response: 29.25

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities of DDE and total expenditure excluding salary, year - wise, over the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
10.68875	14.35491	27.37789	23.31925	96.42262

File Description	Document
Institutional data in the prescribed format (data template merged with 4.1.2 and 4.2.2)	View Document
Audited income and expenditure statement of the institution to be signed by CA and counter signed by the competent authority (relevant expenditure claimed for maintenance of physical facilities and academic support facilities should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.4.2

There are established systems and procedures for maintaining and utilizing physical and academic support facilities – laboratory, library, sports complex, computers, classrooms etc.

Describe policy details of systems and procedures for maintaining and utilizing physical, academic and support facilities within a maximum of 500 words

Response:

Maintenance of the laboratory:

There is a well defined policy for maintenance of laboratory equipments and physical infrastructure.

Most of the equipments of the institute are under annual maintenance contract (AMC). At the beginning of the financial year, notice inviting tender are floated. After receiving tenders, work order is issued to a vendor following the purchase norms of the Government of West Bengal. In the event of non-functioning of any equipment, the vendor is informed. As per terms of the work order, the equipment are to be repaired within 24 hours of registering of the complaint. If the instrument is not in AMC, the repairing is done maintaining the purchase rule of the Government. The cleanliness of the laboratories are maintained by outsourced staff. The PWD looks after the civil and electrical maintenance of the laboratories.

Library:

Librarian, with supporting staff maintains the library of the institute. They focus on the availability and utilization of books, Journals and other facilities. Stock verification is done at an interval. List of books to be procured are obtained from the students, faculties and staff. The list is forwarded to the Librarian by the Head of the department. Library committee decides the policy of the library. The list of books to be purchased is placed in the Library Committee for approval. The maintenance of photo copying machine etc is done through AMC. The pest control, binding of old books etc are done periodically. The cleanliness of the library are maintained by outsourced staff. The PWD looks after the civil and electrical

maintenance of the library. There is a register in the library to monitor the usage of the library facilities.

Sports complex:

The members of Students' Welfare Association (SWA) of the institute look after the sports facilities. The sports equipments are issued to the students as per the schedule of the events. If any equipment gets faulty, proposal is submitted for maintenance. Preventive maintenance measures are taken in time. Sport incharge of SWA is responsible for keeping the record of utilization of sport facilities, activities held, and awards for the students etc.

Computers:

Most of the computers, printers, UPS of the institute are under annual maintenance contract (AMC). At the beginning of the financial year, notice inviting tender are floated. After receiving tenders, work order is issued to a vendor following the purchase norms of the Government of West Bengal. In the event of non-functioning of any computer, printer etc the vendor is informed. As per terms of the work order, the computer are to be repaired within 24 hours of registering of the complain. If the computer, printers are not in AMC, the repairing is done maintaining the purchase rules. Network maintenance committee constituted with faculties and technical assistant looks after maintenance and augmentation of the internet facilities.

Classrooms:

The class rooms are cleaned on daily basis. The PWD looks after the civil and electrical maintenance of the class room. The maintenance of CCTV, LCD projectors, computers and internet facilities are done by AMC.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1

Percentage of students benefited by scholarships and freeships provided by the institution, government and non-government bodies, industries, individuals, philanthropists during the last five years

Response: 25.89

5.1.1.1 Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
158	127	151	145	99

File Description

Document

Year-wise list of beneficiary students in each scheme duly signed by the competent authority.

[View Document](#)

Upload Sanction letter of scholarship and free ships (along with English translated version if it is in regional language).

[View Document](#)

Upload policy document of the HEI for award of scholarship and freeships.

[View Document](#)

Institutional data in the prescribed format (data template)

[View Document](#)

Provide Links for any other relevant document to support the claim (if any)

[View Document](#)

5.1.2

Efforts taken by the institution to provide career counselling including e-counselling and guidance for competitive examinations during the last five years

Response:

The Government College of Engineering and Ceramic Technolgy provides career counselling and guidance for competitive examinations to its students regulary. Career counselling is increasingly seen as having a huge significance in a student's life. Today's youth are more keen to carve out their own

paths rather than following the traditional routes of their predecessors. This career counselling and guidance for competitive examinations are done at different stages:

1. Induction programme

The goal of higher education is to nurture human beings responsible for their own betterment and capable of sustaining society and nature, besides enabling them to procure a position to earn their livelihood. The incoming undergraduate students are often influenced by their parents and society to join higher study without understanding their own interests and talents. There is high probability that students fail to develop an understanding about the goals of Educational Institutes as well as higher education. During induction programme there are sessions where people from industries and the Professor of training and placement of the institute delivers lecture to make students aware of the prospect of different branches of Engineering and skill to be attained to become employable. This make students focussed from the very first day of the program.

2. Mentor:

There is a very effective Mentor-Mentee scheme in the institute. The students meet their mentor regularly. Mentors also counsell students and offers guidance for competitive examinations.

3. Wipro:

There is a regular program of guidance for competitive examinations by WIPRO through its Talent Next Program. The Main Objective of this training program is to make the aspiring engineers get acquainted with the conceptual as well as practical knowledge in Java and J2EE. In this training program Wipro company is providing direct job opportunities for the students based upon their performance. After completion of this training program students will get the sufficient knowledge in Java and J2EE to get the job opportunity in various MNC companies. The training provided by the WIPRO is not limited to Java only. They also provide training on many industries recommended and validated advanced technologies such as Artificial intelligence foundation etc.

4. Tata Consultancy Services (TCS):

The Tata Consultancy Services also conducts regular career guidance program to make student employable. These include different soft skills and technical skills. The main focus area is to help students in gaining knowledge in emerging technology which helps them in employability.

5. GATE counselling:

Graduate Aptitude Test in Engineering or GATE is a national-level engineering entrance examination. Students participate in the GATE examination for M.Tech admissions or PSU recruitments. Since the level of competition is high, candidates should have an idea about how to prepare for GATE. There is a group of teachers in the institute who offers guidance for GATE to the students of the institute. Most of the students of the institute come from poor economic back ground. They can not effort to go for GATE coaching outside. About ten lakhs of candidates appear in the GATE exam for higher studies as well as job opportunities every year in the country. Every year students of this institute score high in the GATE with the guidance of the faculties of the institute.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

5.1.3

Following capacity development and skills enhancement activities are organised for improving students' capability

- 1.Soft skills**
- 2.Language and communication skills**
- 3.Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)**
- 4.Awareness of trends in technology**

Response: B. Any 3 of the above

File Description	Document
Report with photographs on programmes conducted for awareness of trends in technology	View Document
Report with photographs on programmes/activities conducted to enhance soft skills, Language & communication skills, and Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.1.4

The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases

- 1.Implementation of guidelines of statutory/regulatory bodies**
- 2.Organisation wide awareness and undertakings on policies with zero tolerance**
- 3.Mechanisms for submission of online/offline students' grievances**
- 4.Timely redressal of the grievances through appropriate committees**

Response: A. All of the above

File Description	Document
Proof w.r.t Organisation wide awareness and undertakings on policies with zero tolerance	View Document
Proof related to Mechanisms for submission of online/offline students' grievances	View Document
Proof for Implementation of guidelines of statutory/regulatory bodies	View Document
Details of statutory/regulatory Committees (to be notified in institutional website also)	View Document
Annual report of the committee monitoring the activities and number of grievances	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.2 Student Progression

5.2.1

Percentage of placement of outgoing students and students progressing to higher education during the last five years

Response: 61.51

5.2.1.1 Number of outgoing students placed and progressed to higher education during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
81	70	84	73	74

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.2.2

Percentage of students qualifying in state/ national/ international level examinations out of the

graduated students during the last five years

(eg: NET/SLET/ Civil Services/State government examinations etc.)

Response: 10.79**5.2.2.1 Number of students qualifying in state/ national/ international level examinations (eg: NET/SLET/Civil Services/State government examinations etc.) year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
13	12	21	08	13

File Description	Document
List of students qualified year wise with details of examination and links to Qualifying Certificates of the students taking the examination	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.3 Student Participation and Activities**5.3.1****Number of awards/medals for outstanding performance in sports/cultural activities at University / state /national / international Level events during the last five years****Response:** 0**5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at University / state / national / international level events (award for a team event should be counted as one) year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

File Description	Document
Institutional data in the prescribed format (data template)	View Document

5.3.2

Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution.

Describe the Student Council activity and students' role in academic & administrative bodies within a maximum of 500 words

Response:

There is a Student Welfare Association (SWA) in the institute. It serves as a channel through which the student community can voice their opinions and concerns. The SWA continuously strives to identify student-related issues and help resolve them, thus building a healthy environment in the institute.

The student welfare Association is constituted every year with the head of the institution as its Advisor. There is no formal election to select members of the association. The student of the institute has their internal mechanism to select members of the association following democratic procedure. There are different office bearers such as the President, General Secretary, Asst. General Secretary, Cultural Secretary, Game Secretary and Class Representatives.

The council oversees the extracurricular activities apart from bringing to the notice of the authority the problems, the students, in general, may face from time to time. Student Welfare Association and its representatives are responsible for organizing various co-curricular activities for students in the campus. They also look after the welfare of the students as a whole and put forward grievances of the student community, if there be any, before the authority. The students' representatives work as facilitators for the functions of training and placement cell of the college. The students' welfare Association are also responsible for assisting, motivating, counselling and organizing various events during Jagriti, their cultural annual fest, and Karmatec, an inter college technical fest, held at the campus respectively.

The SWA also take part in the decision making of the institute. The General Secretary of the Welfare Association is a member of the Governing Body of the institute. A few student representatives are actively involved in organizing industrial training, industry visits and both on and off campus placement drives.

Other than these, the SWA forms different committees to perform various activities in a systematic manner.

- Magazine Committee:

The committee members are responsible for publication of wall magazine and annual magazine of the institute. The Magazine secretary heads the committee.

- Grievance Committee: Elected members from the students in Grievance committee ensure transparency in decision making.
- Anti -Ragging Committee: Students representation in Anti -Ragging Committee ensures transparency in decision making.
- Canteen Committee: Members of Canteen Committee manage the canteen of institute by ensuring healthy and hygienic food.
- Cultural Committee: The SWA has a Cultural Secretary who play an active role in organizing various cultural events like Jagriti, International Women’s day, International environment day, Independence Day, Republic Day etc.
- Sports Committee: The sports committee organizes various sports events of intra college and inter college nature.
- Hostel Committee: Students take care of various requisites of hostel and raise the issues to management and manage the day to day work related to security, hygiene, discipline etc.

By participating in various committees’ students get exposure of social and corporate atmosphere. It helps to develop leadership skills, team building, decision making, time management, self-discipline among the students and create robust managers for industry. It helps the institute to generate fresh ideas which infuses dynamism in the institute’s environment.

The SWA raise funds whenever there is need to fulfill social responsibility. They also play a significant role as volunteers in conferences, workshops, sports events and other functions

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

5.3.3

The institution conducts / organizes following activities:

- 1.Sports competitions/events**
- 2.Cultural competitions/events**
- 3.Technical fest/Academic fest**
- 4.Any other events through Active clubs and forums**

Response: A. All four of the above

File Description	Document
Report on Sports, Cultural competitions/events, Technical/academic fests, Any other events through active clubs and forums along with photographs appropriately dated and captioned (whichever is applicable)	View Document
List of students participated in different events year wise signed by the head of the Institution	View Document
Institutional data in the prescribed format (data template)	View Document
Copy of circular/brochure indicating such kind of activities.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.4 Alumni Engagement

5.4.1

Total Amount of alumni contribution during the last five years (INR in lakhs) to the institution through registered Alumni association:

Response: 30

5.4.1.1 Total Amount of alumni contribution during the last five years (INR in lakhs) to the institution year wise through registered Alumni association:

2021-22	2020-21	2019-20	2018-19	2017-18
1	1	11.	10	7

File Description	Document
Annual audited statements of accounts of the HEI highlighting the Alumni contribution duly certified by the Chartered Accountant/Finance Officer	View Document

5.4.2

Alumni contributes and engages significantly to the development of institution through academic and other support system

Describe the alumni contributions and engagements within a maximum of 500 words

Response:

The 'Alumni Association of the Government College of Engineering and Ceramic Technology' closely works with the institute and provides dedicated support in all activities. It has contributed significantly through financial and non-financial means during the years.

The institute has a registered Alumni association with a distinguished list of alumni. The Alumni association of Govt. College of Engineering and Ceramic Technology is very active and functional and keeps close contact with the college authority for overall development of institute. The alumni of the institute are very successful in their career. They are the flag bearer of the institute. Few alumni are senior VPs/Managing Directors of reputed industries; few are heading production, international marketing, project divisions etc. The Alumni association is working continuously to organize events in the institute. To mention a few are

- Special lectures,
- Different technical seminars;
- Academic convention,
- Workshops
- Yearly event like National symposium.
- Tree plantation program

The Alumni association also conducts events for carrer counselling, Soft Skills, personality development and skills to face Interviews.

There is very good bonding between institute and Alumni association of the institute. They organise Alumni meet every year in the institute to strengthen the bonding between the former students and current students and faculties of the institution.

The Alumni Association also funds different programmes jointly organized with the institution for the benefit of students and faculty.

The experience and expertise of the members of the Alumni association is utilised in developing curruculum of the institute. Some alumni members are members of BOS of Ceramic Technology , IQAC and Aacademic Council of the institution.

The administrative posions of our alumni are ulitised for the benefit of the students. Many alumni make scope for the internship to the present students.

The Alumni Association organized a virtual program on "Reconnecting, Restoring and Revigorating the GCECTian spirits" on 30th January, 2021.

The purpose of an information centric website is to convey specific, helpful information to a specific user/audience so that the reader learns something better. With this purpose the Alumni association maintains a secured website: <https://www.gcctalumnus.org> for communication and dissemination of information of whereabouts of members of alumni, their welbeing, prograss and other informations. The association uses an email id: gcctalumnus@gmail.com.

There is system of collecting regular feedback and suggestions from the alumnas for developmental activities of the institute.

The Alumni association of the institute encourages students in many ways. The annual award to best graduate of Ceramic Technology has been initiated by the association.

There is a regular involvement of members of alumni throuout the year. They are invited to act as judge for different extracurricular events of the institute. They also act as external experts of different examintions. The members of the Alumni association serve as role models for students due to their professional acomplishment and distinguished services in different fields.

Various social welfare activities are organized by the Alumni association of the institute such as Free Medical camp, every month in the institute. They also extend financial help to the poor and the needy.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1

The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.

Response:

The Vision statement provides a destination of the Institute. Next is mission statement. This is a guiding light of how to get to the destination. There are strategies to achieve the goal with the help of mission statements.

The vision of this institute aim at

1. Excellence in field of Ceramic Technology, Computer Science and Engineering and Information Technology by imparting core knowledge to the students
2. Centre of academic excellence and advance research
3. Transform a student to skilled technologist

The strategies to achieve goal with the help of mission statement:

M1: To impart high quality technical education with ethical values that will produce globally competitive engineers & technologists

The curriculum of the institute have been developed as per guideline of the regulatory authority. The curriculums of reputed national and international institute have also been taken in to consideration. There is inbuilt mechanism to inculcate ethical values through the system of teaching learning process. The stated program outcome as devised by accrediting agencies along with its attainment by the students make them globally competitive engineers and technologist.

M2: To inculcate entrepreneurial skill and leadership quality amongst potential students.

There are components in the curriculum to help the student to develop entrepreneurial skill and leadership qualities. More over there are extracurricular activities that help students to develop leadership qualities.

M3: To motivate students for acquiring and eventually generating advanced knowledge.

There are courses that are optional in nature. Acquiring extra credit out of these optional courses would fetch them skill and honours degree. There are different components in the curriculum that motivated students to acquire and generating advance knowledge.

M4: To create compassionate, responsible and innovative global citizens

There are skills such as

- Critical thinking and problem solving
- Community and collaboration
- Technology skill
- Cross-cultural awareness

help students to become compassionate, responsible and innovative global citizen. The component in the curriculum such as project, inrenship, NSS activities helps students to acquire those skills. Moreover, there are extracurricular activities regularly conducted in the institute help students to acquire cross-cultural awareness, adaptabilty etc.

M5: To strengthen Institute-Industry interaction to make the students aware of real problems in the Industries and solutions thereof

Students are encouraged to do their project in the industry. Moreover, industries offer intership to students of the institute on regular basis. This helps students to strengthen Industry-Institute interaction.

Sustained Institutional Growth:

The main objective of the institute is to provide quality education and preparing students for the workforce. By focusing on the above factors, this institute ensures sustainable growth providing students with the best possible educational experience by continually improving and innovating its competitive edge and providing students with the skills and knowledge needed to succeed in today's dynamic workforce.

Decentralization & Participation in the institutional governance:

It promotes a culture of decentralization and participative governance in the process of decision-making and implementation. The Department of Higher Education, Government of West Bengal, has bestowed freedom and flexibility to Board of Governors to formulate policies of the institute. The Principal leads all the academic activities and administration of the college with the help of different departments and sections of the institute that work in a decentralized manner following the general guidelines.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

6.2 Strategy Development and Deployment

6.2.1

The institutional perspective plan is effectively deployed and functioning of the institutional bodies are effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc

Response:

Teaching and learning:

- The College always strives for excellence in teaching learning process which is reflected in placement record of our graduates.

Research and development:

- There is a dedicated research committee in the College which helps encouraging a culture of research among teaching staff, research scholars and students.

Community engagement:

- The NSS unit of the college is very active in community engagement programmes like eye camp, tree plantation, awareness campaign on hygiene, environment, self defense, swachh Bharat etc.

Human resource planning and development:

- The College endeavors in the development of human resource by providing high class learning environment and infrastructural facilities. They are encouraged to take challenges, represent themselves as a responsible citizen in the society.

Industry interaction and Placement:

- The College has developed an Industry Institute Cell which keeps a close liaison with the industries.

Policies:

The institute has policies to perform different activities in efficient manner and to avoid arbitrariness. There are policies for Admission, Administration, Examination, Quality, Gender Policy, Code of conduct, Research, Environment and Sustainability, Waste Management and Green Initiatives, Physical Facilities - Utilization and Maintenance, Extension Activities, Students Activities etc.

Administrative setup:

The Department of Higher Education, Government of West Bengal, has bestowed freedom and flexibility to Board of Governors to formulate policies of the institute. The Principal leads all the academic activities and administration of the college with the help of different departments and sections of the institute that work in a decentralized manner following the general guidelines.

Institute level - All the main decisions related to the institute are taken by the Principal in consultations with the Head of departments and Coordinators of various programmes, events and committees.

Department level - The Department Heads are responsible to look into day-to-day administration of the department and report to the Principal.

The institute always promotes the culture of participative management by involving staff and students in various activities.

Appointment:

There are different categories of employees in the institute. The employees are graded as Group – A, B, C and D following their pay scales. The selection of Group- A, Group-B and Group-C employees are done by the West Bengal Public service commission. The selection of Group-D employees are done by the West Bengal Group D Recruitment Board, 2017 under Home and Personnel Department.

Service rule:

The institute is under the administrative control of Higher Education Department, Government of West Bengal. The institute follows West Bengal Service Rules and West Bengal Financial Rules.

The West Bengal Services (Duties, Rights and Obligations of Govt. Employees) Rules, 1980 which provide the rules of conduct of the employees working under the Govt. of West Bengal have replaced the West Bengal Govt. Servants' Conduct Rules, 1959 and came into effect from 1st June, 1980.

West Bengal Financial rules describe *primarily the financial powers of different authorities subordinate to the Government of West Bengal and the procedure.*

Procedure:

There is a documented Standard Operating Protocol (SOP) that describes the regularly recurring operations to ensure that the operations are carried out correctly (quality) and always in the same manner (consistency).

File Description	Document
Upload any additional information	View Document
Institutional perspective Plan and deployment documents on the website	View Document
Provide the link for additional information	View Document

6.2.2

Institution implements e-governance in its operations. e-governance is implemented covering the following areas of operations:

1. Administration including complaint management
2. Finance and Accounts
3. Student Admission and Support
4. Examinations

Response: A. All of the above

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	View Document
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	View Document
Annual e-governance report approved by the Governing Council/ Board of Management/ Syndicate Policy document on e-governance	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

6.3 Faculty Empowerment Strategies

6.3.1

The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression

Response:

The performance appraisal system:

To improve Performance, Efficiency, Accountability and Integrity of the employees of Govt. of West Bengal, Performance Appraisal is implemented. Employees under Group – ‘A’, are guided by Annual Confidential Report System. For other categories of employees, viz. Group – ‘B’, Group – ‘C’ and Group – ‘D’ are now guided by Open Performance Report System.

Effective welfare measures for teaching and non teaching staff:

The welfare measures for teaching and non-teaching staff are same as State Government schemes. Government policies are followed for all the teaching and non-teaching staff of the college.

- The permanent employees are getting benefit of general provident fund, gratuity on superannuation and pension as per state government rules.
- The employees are entitled to get residential accommodation in Government Housing Estates

which spreads throughout the city.

- Provisions for various types of loans such as house building, computer, vehicle etc. from the Government are also available as per existing norms.
- All teaching and non-teaching staffs are entitled to get free medical treatment under the West Bengal Health Scheme (WBHS) for themselves and their dependent family members in all Government Hospitals as per existing rules. There is health scheme of the Government where every employee can enroll himself to get medical reimbursement of their treatment expenses in a list of major private hospitals throughout the country.
- There is group insurance policy for every employees of the College as per Govt. rules. Child Care Leave can also be availed by the employees, which is a paid leave. Female employees can avail Child care leave of maximum 730 days and male employees can avail Paternity-cum Child Care Leave of maximum 30 days apart from the conventional leaves for grooming of their children up. This leave can be availed up to the age of eighteen years of the child under the Child Care Leave scheme.
- Covid vaccination has been arranged for the employees by the Government of West Bengal
- Provision for LTC is also there as per the rules of Government of West Bengal.
- There is a provision for the festival bonus or advance of salary, depending on the basic pay of the employee.
- Apart from these, on demise of in-service Government staff (depending on pay scale), there is a provision for the appointment of his/her son/ unmarried daughter on compensatory ground.

Avenues for career development/progression:

- Career development/ progression for the teachers and other academic staffs are guided by the All India Council of Technical Education (Career advancement scheme) regulation announced from time to time.
- Career development/ progression for other staffs are guided by career advance scheme for the state Government employees announced from time to time. Subject to fulfilment of usual norms of promotion a government employee directly appointed to a post borne in revised Level-1 to 15 in the Pay Matrix of the WBS (ROPA) Rules, 2019 or its corresponding pre-revised Pay Band and Grade Pay/scales of pay under the previous WBS (ROPA) Rules, is entitled to move to the first, second and third higher Level in relation to the basic Level.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

6.3.2

Percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

Response: 0

6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and

towards membership fee of professional bodies year-wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

File Description	Document
Institutional data in the prescribed format (data template)	View Document

6.3.3**Percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDPs)/ Management Development Programmes (MDPs) during the last five years****Response:** 22.02**6.3.3.1 Total number of teachers who have undergone online/ face-to-face Faculty Development Programmes (FDP)/ Management Development Programs (MDP) during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
5	16	10	2	4

File Description	Document
Refresher course/Faculty Orientation or other programmes as per UGC/AICTE stipulated periods, as participated by teachers year-wise.	View Document
Institutional data in the prescribed format (data template)	View Document
Copy of the certificates of the program attended by teachers.	View Document
Annual reports highlighting the programmes undertaken by the teachers	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

6.4 Financial Management and Resource Mobilization

6.4.1

Institutional strategies for mobilisation of funds other than salary and fees and the optimal utilisation of resources

Describe the resource mobilisation policy and procedures of the Institution within a maximum of 500 words

Response:

Resource mobilisation policy and procedure:

The Resource Mobilization Policy enumerates strategies and protocols for

1. Mobilisation of Financial resources
2. Mobilisation of Physical resources
3. Mobilisation of Human resources

Mobilisation of Financial resources:

- The institute encourages the faculty to apply for various grants to enhance research facilities and augmentation of the laboratories.
- There are different schemes of the State Government, Central Government, UGC, AICTE and other funding agencies. The institute writes project to receive grants from these agencies.

The Institute mobilizes its resources through:

1. Grant under section 12 B of UGC
2. Funded projects from AICTE
3. Research projects from DST Government of India and DST Government of West Bengal
4. Funds from RUSA
5. Funds from Technical Education Quality Improvement Program of Government of India (TEQIP D)
6. Funds generated through consultancy offered
7. Industry linked laboratories.
8. The Alumni, who also provide financial and non-financial support for various activities in the institute.
9. Autonomy grant from UGC
10. Funds are also generated as a result of interest on corpus fund,
11. overhead charges from the research grants received from various government/non-government agencies
12. Funding from alumni donors.

Apart from the above, funds are also mobilized through;

1. Fee collected by conduct of FDP, conferences, workshops etc.
2. The institute also mobilizes its resources from funds generated from self-financing and vocational courses run by the institute.

3. Outsourcing of physical and other resources of the institution. The Institute facilities are outsourced for the conduct of examinations by West Bengal Joint Entrance Examination Board.

Mobilisation of Physical resources:

1. Looking into the infrastructural and physical development needs of the institute, it shall attempt to identify such platforms and opportunities that can provide financial resources to cater these needs
2. Since it is State Government institute, the main sources of funds other than salary and fees are from State Government as per budgetary allocations. Budget is prepared keeping in mind developmental need of the Institute. The budget is sent to the department of higher education for approval. It is then deployed on different Heads of Expenditures in accordance with approval.
3. The Autonomy grant received from UGC is used to develop physical resources as per plans and budget approved by Financial Management committee.

Mobilisation of Human resources:

1. The institute mobilizes its human resources by visualizing, designing and implementing academic and co-curricular activities to develop the potential of the students to the fullest.
2. The institute encourages all staff members to reach their personal and professional growth and provides facilities to achieve the goal.
3. The institute follows the norms of AICTE and affiliating university to meet the need of human resources.

The funds from various sources are primarily used for two purposes:

Academic and Extension Initiatives

1. Seminar, workshop and Faculty Development Programmes
2. Extracurricular activities of the students such as sports and cultural activities

Infrastructure Augmentation

1. New infrastructure facilities for new programmes/courses/ Extracurricular activities
2. Maintenance of existing facilities (infrastructure and lab)
3. Purchase of new lab equipment
4. Purchase/upgradation of ICT facilities
5. Augmentation of library facilities.

Purchase rule:

Purchase /Procurement are done in compliance with the financial rule of Government of West Bengal that is in force from time to time.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

6.4.2

Funds / Grants received from government bodies, non-government bodies, and philanthropists during the last five years (not covered in Criterion III and V)

Response: 0

6.4.2.1 Total Grants received from government/non-government bodies, philanthropists year wise during last five years (not covered in Criterion III and V) (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	0	0

File Description	Document
Institutional data in the prescribed format (data template)	View Document

6.4.3

Institution regularly conducts internal and external financial audits regularly

Enumerate the various internal and external financial audits carried out during the last five years with the mechanism for settling audit objections within a maximum of 500 words

Response:

Audit:

The broad objectives of audit are to ensure legality, regularity, economy, efficiency and effectiveness of financial management and public administration mainly through assessment as to:

- whether the financial statements are properly prepared, are complete in all respects and are presented with adequate disclosures

Financial audits of funds received from the Government, UGC, AICTE and other agencies are carried out regularly by internal and external financial audits.

Internal financial Audits:

There is an Accounts officer in the Institute. Accounts officer also acts as a Drawing and Disbursing office (DDO). As a procedure of every purchase, the relevant documents such as requisition, notice inviting tender, comparative statement, credential of vendors are to be submitted to the purchase committee for approval. The work order is issued after the approval of purchase committee. After delivery of the material, all relevant documents such as invoice, bills, proof of entry in the stock register, test report etc to be submitted to the DDO for payment. The DDO verifies all the documents and ensures adherence of all financial rule. In case of non adherence, the DDO sends back for rectification.

External financial audit:

1. The audit of funds received from the Government, UGC, AICTE, DST and other agencies are carried by the Chartered Accountant hired by the institute from the panel of approved list of the Government of West Bengal. The audit report, issued by the auditor, with utilization certificate and all necessary ratified accounts is submitted to the sanctioned authorities concerned. In the case of events organized by institute, departments, clubs which receive funding from governmental and/or non-governmental agencies, are also audited as separate expenditure statements/files by the Chartered Accountant.
2. The Accountant General also conducts their periodic verification of all the accounts sanctioned by the Government. Their suggestions and directions are also incorporated in the further utilization of the funds.

The accounts of the financial years, 2017-2018, 2018-2019, 2019-2020, 2020-2021 and 2021-2022, are carried out by the Chartered Accountant. The grant received during the aforesaid period from different agencies eg UGC, DST and other agencies are also audited by the Chartered Accountant.

Mechanism for settling audit objections:

1. The audit objections of external audit and internal audit with all the material facts, findings are communicated to the Principal of the institute through a formal report after completion of the assignment.
2. The audit objections raised by the Chartered Accountant could be in the nature of – recovery, rectification, action -oriented, non-production of evidences, mis-appropriation, mis-utilisation of funds, procedural lapses, non compliances of statutory provisions etc. These communications are examined by the office of the Principal for rectification.
3. After completion of audit by the Accountant General (AG), the audit observations are being forwarded to audited entities in the form of Inspection Report (IR). The major observations (part-II-A paras) which have potentiality are being forwarded to HoDs in the form of Statement of Facts (SoF). After getting reply from the HoD about the SoFs the same are processed as Potential Draft Paras (PDPs) and subsequently featured in the Audit Report as Draft Paras (DPs). There exist several mechanisms for enforcing compliance to audit viz. Broad Sheet Replies, Audit Committee Meetings, Bi-lateral meetings, Half Yearly report of Outstanding IRS/ Paras, etc.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

6.5 Internal Quality Assurance System

6.5.1

Internal Quality Assurance Cell (IQAC)/ Internal Quality Assurance System (IQAS) has contributed significantly for institutionalizing the quality assurance strategies and processes, by constantly reviewing the teaching-learning process, structures & methodologies of operations and learning outcomes, at periodic intervals

Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes visible in terms of –

- **Incremental improvements made for the preceding five years with regard to quality (in case of first cycle)**
- **Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)**

Describe two practices institutionalized as a result of IQAC initiatives within a maximum of 500 words

Response:

The Internal Quality Assurance Cell of the institute has contributed significantly for institutionalizing quality assurance strategies in the areas of Strategic Planning, Evaluation of teaching learning , Research activities, Quality culture development and Continuous improvement.

Incremental improvements made during the preceding year with regard to quality are as follows:

IQAC formulated the quality policy of the whole academic system of the institute. The periodic monitoring of the adherence of the guidelines of the IQAC was made. Member of the IQAC physically visited different departments to assess the performance of the department and recommended steps to be taken for further betterment. The autonomous status of the institute also helped to device modern curriculum with need based courses during the first cycle of accreditation.

- It was observed that the class response, as well as the results of the students was improving after the implementation of the continuous evaluation process, from 2018-19 academic session. This is also reflected from the improved placement results, as well as, from the results of the students in the all India competitive examinations, such as GATE and others.
- Elective subjects based on requirement of the Industries and lectutes by Indudtry experts to fill the gap between technology taught and need of the industries helped the students keep themselves updated with the recent requirements of the industries.
- Giving equal weightage to continuous evaluation with Semester end examination has improved the performance of the students.
- Defining weightage for each parameter of evaluation of Project, Seminar, Laboratory activities has brought uniformity and tranperancy of evaluation system.
- Additional classes for soft skill were arranged for students to improve their soft skills. The result of the effort was observed in the proficiency of soft skill among students, especially their better

English speaking ability.

- The feedbacks received from the faculties, Employers and students were discussed critically. This analysis significantly helped the teachers in designing/modifying their teaching plan; which in turn, helped the students in better understanding.
- The CO-PO mapping of all courses and calculation of attainment of students has helped to improve teaching learning process.
- IQAC formulated online teaching learning and evaluation process during COVID 19 pandemic period to maintain continuity of the academic process and quality of evaluation.
- Research was encouraged amongst the faculties. The numbers of research papers published by the faculties show the improvement of research, even under pandemic situations.
- The implementation of best practices also improved the culture of the institute.
- Introduction of Comprehensive Lab Assessment and its evaluation by a panel of external experts of respective field for assessing students' performance in laboratory courses has improved transparency in evaluation, as well as, helped in developing concepts from an external expert.
- Introduction of Honours courses with additional 20 credit points to be acquired through the MOOC, has significantly improved their knowledge as a part of CBCS.
- There were many collaborative quality development programs for faculties and students were organised by the department under direct supervision of IQAC.
- Volunteers of NSS were very active in spreading social awareness in different issues such as AIDS, Pollution, Save water, Tree plantation etc. They also involved themselves in community development activities inline with Sachh Bharat initiative.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

6.5.2

The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms

Describe any two examples of institutional reviews and implementation of teaching learning reforms facilitated by the IQAC within a maximum of 500 words each.

Response:

The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms both during the normal classes as well as during the COVID 19 pandemic.

Example-1

- Due to COVID 19 pandemic, institute had to be closed as per Govt. notification. During the pandemic phase (16th March 2020 onwards), utmost care was taken to see that academic

activities go unhampered during the lockdown period. Online mode in Google Meet platform was adopted for conduction of both for theory and practical classes.

- Online classes continued as per time table prepared. Google Classrooms were created for each and every paper. Official GSuite IDs were issued to every teacher and student for conduction of academic activities in the classrooms. The whole gamut of activities under the GSuite platform was managed by system administrator including the Principal.
- The conduction of the online and offline classes was monitored periodically by the Principal, the Chairman of the IQAC, regarding the attendance of the students, availability of course material etc. Online class records were obtained from the System Administrator engaged. The faculties were advised to record the classes and share the link with students. The Principal periodically monitored these activities and the teachers, who shared less number of classroom recordings, were advised repeatedly to upload all the lectures. Attendance of the students was also monitored and the faculties, mentors communicated the defaulters to explain the reason of absence.
- During COVID 19 pandemic, it was decided that the mid-term examinations, major components of the continuous evaluation scheme, would be conducted online. It was also decided that the Semester End Examinations for the ensuing batches would be comprising of two components; viz., online examination of 50 marks of MCQ type prepared in Google Form and viva voce of 25 marks in each theory paper conducted in online mode (Google Meet). All practical examinations were decided to be held in online mode.
- After completion of examinations, viewing of answer scripts was allowed to students as per Academic Regulation.

Example 2:

- The IQAC also recommended the teachers for organizing quizzes, upload assignments periodically as a part of continuous evaluation process and consider various active learning methods in the classes.
- Teachers were advised to prepare/modify the course material and follow the same during the classes and be careful while developing the learning outcomes from the modules, and link each of the sub-topics of the module to the corresponding Course Outcomes and the Program Outcomes.
- Teachers were advised to frame the mid semester and end semester question papers keeping in mind the intended learning outcomes and Course Outcomes of the respective subjects. They were also advised to link each question with the respective Course Outcome in order to estimate the attainment of the student.
- A LMS was introduced to monitor the academic activities including SMS alerts of attendance of students to guardian.
- All departments discussed the feedback amongst the faculty of the department to find out the deficiency, if any, in the academic delivery system. Apart from that, based on the recommendations of the graduate survey, the departments have been advised to enhance skills among the students as per the Program Outcomes and the need of the industries and follow up the same.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

6.5.3

Institution has adopted the following for Quality assurance:

- 1. Academic and Administrative Audit (AAA) and follow up action taken**
- 2. Conferences, Seminars, Workshops on quality conducted**
- 3. Collaborative quality initiatives with other institution(s)**
- 4. Orientation programme on quality issues for teachers and students**
- 5. Participation in NIRF and other recognized ranking like Shanghai Ranking, QS Ranking Times Ranking etc**
- 6. Any other quality audit recognized by state, national or international agencies**

Response: B. Any 4 of the above

File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period	View Document
NIRF report, AAA report and details on follow up actions	View Document
List of Collaborative quality initiatives with other institution(s) along with brochures and geo-tagged photos with caption and date	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document
Link to Minute of IQAC meetings, hosted on HEI website	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1

Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years.

Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words

Response:

Gender equity is the state of equal ease of access to resources and opportunities regardless of gender. The Government College of Engineering and Ceramic Technology reflect a diverse population of male and female on the campus. The Creation of space for equality and ruling out discrimination against caste, religion, sect and sex will help to deliver equal opportunity in the campus and transformation in our country. Thus, there is a need to imbibe a sense of equality in the mind of all stakeholders of the institute. The need to have a safe working space for students, staff and other stakeholders on the campus is one of the significant aspects of this institute. Focusing on the primary aim to ensure a safe space and promote healthy environment, the Government College of Engineering and Ceramic technology (Autonomous), is committed to provide equal opportunities to both the genders in terms of admissions, employment, empowerment, leadership, training programs and sports/ cultural activities.

To create a safe space for everyone, the college has on-campus CCTV surveillance and security guards at the gate. The college has a strong redressal system in the form of Internal Complaints, Grievance Redressal and Anti-Ragging Committees. The institute has provisions for psychological counseling. These measures ensure a gender sensitive and empowering environment.

There is a Girls' common room in the campus with news paper, magazines and attached toilet facilities.

There is a gymnasium with modern equipments for fitness of the students in the campus. There is a badminton court in front of Girls' common. This helps Girl students to practice during their free time.

The institute organizes gender sensitization programmes both inside and outside the campus. The Alumni association of the institute organizes periodic medical camp in the institute to help staff, students of the institute. Health camp for eye check up also organized in the institute.

Self defence training programme especially for girls are arranged with qualified trainer. The discussion on different topics to create an awareness on gender equity, gender equality such as "Legal aids for protection of individual rights, Awareness program on Women's right "etc are arranged.

There is a practice to incorporate topics of Gender equity, Gender equality and Gender sensitization in the course English (ES 201) and English Language laboratory (ESL 202). Movies on Gender equity, Gender equality and Gender sensitization are screened periodically to imbibe the sense of Gender equality etc in the mind of the students.

There is a separate display board to display posters on Gender equality. This visual display helps everybody to articulate the concept of gender equity and equality very easily.

International Women's day are celebrated to disseminate information on rights, equity and equality.

The girl students are encouraged to participate equally in the activities arranged by the Students' welfare association and the institute. During 2019 and 2022, Miss Rajarshi Chatterjee occupied the chair of general secretary of Students' welfare association.

The scheme of Government of West Bengal titled "Kanyashree" helps girl students to become independent financially. Every effort is made to disseminate the information of the scheme to the students so that they can take benefit of the scheme. Many students of the institute have been enrolled in the scheme.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

7.1.2

The Institution has facilities for alternate sources of energy and energy conservation measures

1. Solar energy
2. Biogas plant
3. Wheeling to the Grid
4. Sensor-based energy conservation
5. Use of LED bulbs/ power efficient equipment
6. Wind mill or any other clean green energy

Response: A. Any 4 or more of the above

File Description	Document
Permission document for connecting to the grid from the Government/ Electricity authority	View Document
Geo-tagged photographs of the facilities.	View Document
Bills for the purchase of equipment's for the facilities created under this metric	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.1.3

Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- **Solid waste management**
- **Liquid waste management**
- **Biomedical waste management**
- **e-Waste management**
- **Waste recycling system**
- **Hazardous chemicals and radioactive waste management**

Response:

Dumped waste is aesthetically unpleasing and can cause health problems.

In order to maintain cleanliness and hygiene, the institute always keeps watch upon proper disposal of waste generated every day. Being situated in the heart of Kolkata city, the institute gets the service of waste disposal squad of Kolkata Municipal Corporation which collects the waste from the premises on daily basis.

Solid waste management:

Solid waste can be categorized into threetypes: biodegradable, non-biodegradable and hazardous waste. Biodegradable wastes include food wastes, canteen waste, wastes from toilets etc. Non-bio-degradable wastes include plastic, tins and glass bottles etc. Hazardous waste is waste that is likely to be a threat to health or the environment like cleaning chemicals, acids and laboratory chemicals.

Several dustbins are placed in each building from where housekeeping staffs take the wastes. There are two bins, one for Biodegradable waste and other for non biodegradable waste, placed in different floors of the building. Each department of the institute as well as administrative office create some waste and dumped in waste bin located in the floor of the department.

Plastic bins are also kept at strategic positions inside the premises for dumping separately biodegradable and non-biodegradable waste materials. At one corner of the boundary a large concrete vat with two compartments is maintained where biodegradable materials like dry leaves& dead seasonal flower plants are dumped from time to time for composting which after maturing are recycled as plant nutrients.

The institute produces lot of paper waste. Paper wastes from the department, Library, Administrative offices, Hostels are disposed through vendors. The wastes are properly stacked in designated place and later disposed through vendors for proper waste management. The institute promotes digital platform to reduce the usage of paper for communication and sharing documents.

Liquid waste management:

Liquid waste is generated from different departments, laboratories, Hostels, and canteen.

Liquid wastes generated by the institute are of two types:

1. Sewage waste.

2. Laboratory and canteen effluents.

Chemistry Laboratory Waste Management:

Chemistry laboratory waste generation is kept minimum by performing experiments in groups thus reducing the chemical usage that leads to less effluent generation. Besides hazardous and toxic salts of Arsenic, Lead, Mercury etc. are seldom given to the students, rather the test of these types of salts are shown by the teacher keeping in mind the handling hazard, thus the toxic effluent generation goes to the minimal level. The liquid waste of the chemistry laboratory, which contains very minimum level of toxic substances, is subsequently discharged to the central sewage system of the Kolkata Municipal Corporation for treatment and disposal. Broken glassware is disposed through proper disposal boxes or containers, which are later, disposed through vendors for proper waste management.

The liquid waste is drained to the central sewage system of the Kolkata Municipal Corporation for treatment and disposal.

Biomedical waste management:

There is no biomedical waste generated in the campus of the institute.

E-waste management:

The institute has very efficient mechanism to dispose E wastes generated from various sources. The e-waste includes out of order equipments or obsolete items like circuits, desktops, laptops and accessories etc. All such equipment's which cannot be reused or recycled is being disposed off through authorized vendors.

Hazardous Waste Management:

There is no hazardous waste generation in the institute.

File Description	Document
Geo-tagged photographs of the facilities	View Document
Any other relevant information	View Document
Relevant documents like agreements/MoUs with Government and other approved agencies	View Document

7.1.4

Water conservation facilities available in the Institution:

1. Rain water harvesting
2. Borewell /Open well recharge
3. Construction of tanks and bunds
4. Waste water recycling

5.Maintenance of water bodies and distribution system in the campus**Response:** B. Any 3 of the above

File Description	Document
Green audit reports on water conservation by recognised bodies	View Document
Geo-tagged photographs of the facilities	View Document
Bills for the purchase of equipment's for the facilities created under this metric	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.1.5**Green campus initiatives include**

Describe the Green campus initiative of the institution including Restricted entry of automobiles, Use of Bicycles/ Battery powered vehicles , Pedestrian Friendly pathways , Ban on use of Plastic, landscaping with trees and plants etc in 500 words

Response:

Major Green campus Initiatives in Government College of Engineering and Ceramic Technology campus:

- Plantation of trees
- Landscaping
- Clean campus
- Infrastructural Initiatives
 - Installation of Energy Efficiency Equipment
 - Water Conservation through Rainwater Harvesting System
 - Installation of roof top solar energy system
- Awareness Initiatives
- Implementation of Green Audit, Energy Audit and Environmental Audit

Plantation of trees:

Programs of plantation of trees are being arranged regularly on different occasions such as World environment day, on the day of retirement of employees etc. The alumni association of the institute also takes plantation drive in the institute. This has created a green environment in the institute.

Landscaping:

The appearance of the open area of land of the institute is enhanced by planting trees, flowers etc. in a planned manner through landscaping.

Clean campus:

In order to keep the campus clean, students and staffs of the institute are actively involved in Swachh Bharat activities, plantation, creating awareness on waste disposal (degradable and non-degradable), ground water harvesting, etc. We ensure the cleanliness of, not only the surroundings, but also the classrooms, library, laboratories and auditorium.

Infrastructural Initiatives:

The various Energy conservation measures adopted in the institute campus, from time to time, includes replacement of all the CRT monitors by LCD monitors in each and every department laboratories. The institute uses maximum number of LED bulbs and tubes for all its lighting needs inside the campus to conserve energy. The solar based street lights have been installed to reduce energy consumption, Upgrading of window air conditioners into split air conditioners also improved energy conservation. The timer is fitted to each air conditioner so that it is switched off automatically after working hour of the institute. This prevents wastage of power.

Rainwater harvesting is the simple process used to conserve rainwater by collecting, storing of rainwater that runs off from rooftops, parks, roads, open grounds, etc. for later use. A rain water harvesting system has been installed in the institute by the PWD of Government of West Bengal.

A 7 kWp solar power energy system has been installed on the rooftop of the institute building. This is also connected to the grid of Calcutta Electric Supply Corporation.

There are pedestrian friendly pathways in the campus. Paper less office practices and digital library are encouraged with the help of modern technologies. There is another practice to use the blank portion of letter etc for rough work.

While designing the buildings, care has been taken to fetch maximum benefit from natural resources, like wind, sunlight to reduce consumption of electricity. The use of transparent glass windows provides maximum sunlight to classrooms and Laboratories. We have Centralized UPS systems for computers. Generator is placed away from the classroom, to minimize noise pollution..

Awareness initiative:

The institute through NSS conducts sensitization programs on the harmful impact of single-use plastics. The awareness programs on plastic free campus, save water, clean campus etc is carried out.

Implementation of Green Audit, Energy Audit and Environmental Audit:

The institute regularly conducts a Green, Energy and Environmental Audits Audit to assess strengths and weaknesses to further its goals of long-term sustainability.

File Description	Document
Policy document on the green campus/plastic free campus	View Document
Geo-tagged photographs/videos of the facilities	View Document
Circulars and report of activities for the implementation of the initiatives document	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.1.6

Quality audits on environment and energy are regularly undertaken by the institution

The institutional environment and energy initiatives are confirmed through the following

- 1.Green audit / Environmental audit**
- 2.Energy audit**
- 3.Clean and green campus recognitions/awards**
- 4.Beyond the campus environmental promotion and sustainability activities**

Response: A. All of the above

File Description	Document
Report on environmental promotion and sustainability activities conducted beyond the campus with geo-tagged photographs with caption and date.	View Document
Policy document on environment and energy usage Certificate from the auditing agency	View Document
Green audit/environmental audit report from recognized bodies	View Document
Certificates of the awards received from recognized agency (if any).	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.1.7

The Institution has Differently-abled (Divyangjan) friendly, barrier free environment

Write description covering the various components of barrier free environment in your institution in maximum of 500 words

- **Built environment with Ramps/lifts for easy access to classrooms**
- **Divyangjan friendly washrooms**
- **Signage including tactile path, lights, display boards and signposts**
- **Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment**
- **Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading**

Response:

The Institution has disabled-friendly, barrier free environment with the following facilities:

1 Ramps and lift for easy access to classrooms

Elevators are provided for people who are disabled as much as being not able to ascend a stair or step up on any elevation The institute has one lift installed in the administrative building of the institute which houses the Ceramic Technolgy departmet, Information Technology department, Computer Science and Engineering department and Basis Science and Humanities department for easy access to the class room. Permanent ramps, made of concrete, are provided for use by people who use walkers or manual or power wheelchairs. Wooden temporary ramps are provided in areas where there were no permanently inclined ramps during construction. There are ramps with railing in the administrative building and in the hostel.

The institute has provided permanent handrails along the ramp, staircase to ensure that the railing is compliant and safe for handicap or disabled people to use..

2. Wheel Chair:

There is a wheel chair in the institute. This chair is made available to disable student students and staffs.

3. Divyangjan friendly washroom:

Disabled friendly washroom with hand rail and support bars has been constructed. There is divyagjan friendly washroom in the ground floor of the admisistrative bulding.

4. Signage including tactile path, lights, display boards and signposts:

- **Tactile path:**

There are tactile path of tile paving parallel to entrance road and along the boundary and play ground of the institute to facilitate the easy walking for sight deficient students and staff of the institute.

- **Light:**

Solar based street light are there in the instutute. Other than these, there are light fitted at different corners of the institute to keep the whole compound and street of the institute lighted. The garden of the institute is fitted with small height stand light to beautify thr garden.

- **Display board:**

Educational institutions need to comply with the safety laws and rules. These signs ensure the safety of the students in case of any emergencies. Directional signage, safety signage, branding and vision-mission signage are installed throughout the campus. There are display boards at different location of the institute to dissiminate different information to the stake holders of the institute.

5. Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screen-reading software, mechanized equipment

- **Screen reading software**

NVDA is a screen reader for Windows, has been installed in the library.

6. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading

- **Scribe:**

When some student feel disabled to write the examination at their own, they can be provided with the Scribe, without compromising the sanctity of the examination e.g Scribe should not have qualification higher than or relevant to the examination that the disabled student is going to write. Separate room under the staff observation is also provided for such students to write the examination conveniently with the support of the Scribe. The Scribe will have to follow just – what the disabled student dictates to write the answers on his/her behalf in the examination.

- **Assistive Technologies:**

Assistive technology (AT) is assistive, adaptive, and rehabilitative tools for people with disabilities. People who have disabilities often have difficulty in teaching and learning process. Therefore, computer assistive software tool such as Microsoft narrator is available in the computer lab for persons with disabilities.

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

7.1.8

Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and such other diversities (within 500 words).

Response:

Being a wholly owned state government institution, the entry is restricted to domiciled candidates only, which implies that there exists fairly enough harmony among the students in terms of cultural, regional, linguistic, communal identities from the very beginning.

Domiciled students include people settled from different regions of India pursuing various faiths. The state of West Bengal seldom witnessed any kind of communal tension in recent history.

Apart from the fact, to iron out differences which may cause tension among different sections, the institute regularly organizes various programs.

The freshers have to undergo a two-week induction program, before they join their formal classrooms, in which they get to know each other more closely apart from bonding with faculty members as their mentors. In this induction programme, speakers from different field of life deliver lectures on various topics to make students aware of tolerance and harmony in social life. The student are also taken to different important places in the city such as Jorasako Thakur bari- the birth place of Rabindra Nath Tagore, Indian Museum, Victoria Memorial, Birla Science and Technological Museum, St Paul Cathedral, Science city, Mother dairy plant, Birla planatorium etc. In this excursion, freshers are escorder by senior students and teachers. This helps students to understand each other and creates a bonding for mutual cooperation extended to them.

Throughout the whole year, the students are encouraged to organize and participate in various programs like JAGRITI Festival, KARMATECH festival, Freshers' Welcome, Farewell for outgoing students, Teachers' Day celebration, Independence Day and Republic Day celebration and myriad other activities to make sure that no sections of students feel left out and their sense of separate identity, whatsoever, gets hurt. The Jagrity and KARMATECH festival, the annual mega event of the students of the institute, are organised by the all section of the students. This develops a sence of leadership and brotherhood amonst all section of students. The active participation of students of different cultural background helps them to know each others culture creating an atmoshere of mini India.

West Bengal is a multilingual state. Students, who hail from different region such as Dargiling etc, face difficulty in commuication with others. This difficulty is overcome very quickly with the strong association with the students and teachers of the institute. Moreover, development of proficiency in English language is in build in the curriculum. There is language laboratry. This helps students to develop proficiency in communication.

Students in the institute come from different socio-economic back ground. Some students are first generation learner. There is a provision for financial support in the form of scholarship to meet tuition fee and other essential expences for studies. There is mentoring scheme in the institute that keeps track of progress of the learner. In the event of necessity, guardian of the learner is also informed about rules, regulation of the institute and the progrss of their wards.

NSS also play a very important role to provide an inclusive environment to all groups of students. There are regular programs organised by NSS unit of the institute.

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document
Any other relevant information	View Document

7.1.9

Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

Describe the various activities in the Institution for inculcating values for being responsible citizens as reflected in the Constitution of India within 500 words.

Response:

The objective of the institute is to produce employable engineering graduates with strong human values and awareness about the rights and duties of responsible Indian citizens.

To fulfil this objective, the study of the basics of the Indian constitution has been made compulsory in the course-curriculum across all departments.

There is a code of conducts for the students of the institute. This code of conduct is posted in the website of the institute for better dissemination. The two great events, Independence day and Republic day are observed with pomp and grandeur every year. These events are attended by large section of students and staffs. The deliberations in those events make students and staff aware of the rights and duties of the citizen of this country. More over it teaches to oblige with the Indian Constitution and respect the National Anthem and Flag. The deliberations of different speakers in these events teaches to cherish and follow the noble ideas that inspired the national struggle for freedom

To reinforce the training of the students in this regard, they are encouraged to participate in various NSS programs. The NSS unit of the institute headed by a dedicated faculty member regularly organizes events to promote values enshrined in the constitution. The participation of students in different NSS activities such as awareness programs on social issues makes them understand their duties and responsibilities towards fellow citizen as envisages in the Constitution of this country. There is a periodical tree plantation programme organised in the institute. These programmes develop a clear view of protection of environment and responsibility to improve the natural environment including lakes, wildlife, rivers, forests, etc. The spirit of harmony and brotherhood amongst all as mentioned in list of fundamental duties are developed through different activities such as annual cultural festival, Saraswati puja, Biswakarma Puja, Blood donation camp etc and renounce any practices that are derogatory to women

It celebrated International Women's Day, International Yoga Day, Red Ribbon Club activities etc to cherish and preserve the rich national heritage of our composite culture in line with fundamental duties.

It is also the duty of the institute to create awareness among the employees about the essence of the Indian Constitution in order to make them more equipped to live with neighbours in complete harmony both in their workplace and dwelling territory. Lectures are organized with employees as participants under the guidance of knowledgeable persons to discuss the features of constitutional obligations and how those elements play out in real life to avoid serious social conflict.

As a government employee, it is obligatory on the part of everybody to follow the West Bengal service rule. Periodically lecture sessions are arranged to make employees of the institute aware of different provisions and obligations. It is imbibed in the mind of staff of this institute that service to nation starts with the service to students of this institute. The sense of charity is inbuilt in the mind of this entire institute. In the event of any need, the staff, students and alumni come forward with monetary help to overcome the crisis of the fellow citizen.

File Description	Document
Details of activities that inculcate values necessary to nurture students to become responsible citizens	View Document
Any other relevant information	View Document

7.1.10

The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

- 1. The institutional Code of Conduct principles are displayed on the website**
- 2. There is a committee to monitor adherence to the institutional Code of Conduct principles**
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
- 4. Annual awareness programmes on Code of Conduct are organized**

Response: A. All of the above

File Description	Document
Report on the student attributes facilitated by the Institution	View Document
Policy document on code of ethics.	View Document
Handbooks, manuals and brochures on human values and professional ethics	View Document
Document showing the Code of Conduct for students, teachers, governing body and administration as approved by the competent authority.	View Document
Constitution and proceedings of the monitoring committee.	View Document
Circulars and geo-tagged photographs with date and caption of the activities organized under this metric for teachers, students, administrators and other staff	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.2 Best Practices

7.2.1

Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual

Response:

1. Title of the Practice:

Establishment of maximum transparency in evaluation of answer scripts

1.1 Objectives of the Practice:

After the publications of result, there are confusions in the mind of examinees about the proper of evaluation of the answer scripts. The same is true for mid term tests also. As per the normal procedure, the examinee needs to apply for the re-evaluation paying the prescribed fees for the answer books of semester examination. To get rid of this system, it is intended to show the answer scripts to the individual students by the concerned evaluator before sending the mark to the controller of examination for finalization of results. This reduces the financial and mental hardship of the students

1.2 The Context:

It was thought that the post publication answer scripts review/scrutiny can be simplified with more transparency, to the satisfaction of the students, by introducing certain reform measures. Previously, post publication scrutiny, review and viewing of answer scripts, a standard procedure, would cost a student Rs.200, Rs.400 and Rs.800 (gradually increasing) respectively. The figures clearly indicate that it might have acted as a deterrent for a student to opt for evaluated answer script viewing as the cost he/she has to bear is the highest, i.e.,Rs.800 per paper. Given the fact that many of the students after qualifying through Joint Entrance Examination opt for the institute because being a government institution it offers them the scope to study engineering at a very low cost, forking out Rs.800 per paper may not be always possible for them.

1.3 The Practice:

The evaluator notifies the date of viewing the answer script well in advance after evaluation is over. The evaluated answer scripts are handed over to the students in the presence of the evaluator. The student goes through the answer scripts throughly. If the student has any query about the evaluation, he/ she are free to discuss the same with the evaluator. If there is any need to rectify the score, this is done in agreement with the evaluator. The student while going through the answer swcript in front of the evaluator may discuss the strategy of evaluation and award of marks. The viewing of answer scripts by the students in front of the evaluator also enhances knowledge of the students on the subject as all the mistakes are pointed out by the evaluator. However, if the disagreement still persists between the two sides, the student is free to pursue the standard laid down procedures to settle the grievance such as applying for re-evaluation after the controller has saught application for re-evaluation. This system of viewing of answewr scripts applies to both mid term and semester end examinations. After viewing of the answerscript, the student needs to put his/her signature in the answerscript. This system of viewing answerscripts is unique in this region. The affiliating university, Maulana Abul Kalam Azad University of technology has also not implemented this transparent system of evaluation.

1.4 Evidence of Success:

The new procedure has made a marked improvement in the grievance settlement after viewing of answerscripts as is evident from the reduction of number of applications received for reconsideration of result after the publication of result. In consecutive years, 2018-19, 2019-20, 2020-2021 and 2021-2022 there was no application from the students for reconsideration of results in any form whatsoever, unlike the previous years. When a student views his/her answerscript under the guidance of the evaluator, it infuses confidence in the mind of the student and enhances his understanding about the evaluation process. This shows the success of the process of viewing of the answerscripts by the students.

1.5 Problems Encountered and Resources Required:

This method of viewing of answerscript is laborious to the evaluator. The evaluator needs to answer all queries of the students in connection with the evaluation of the answerscripts. After this exercise, marks are forwarded to the Controller of the examination. If any student fails to attend the viewing of answerscript, he loses the chance. These are the constraints in it.

2. Title of the Practice:

Encouragement for best performance in the examination by making provision of best graduate award

2.1 Objectives of the Practice:

The objective of the practice is to encourage the student to perform better in the examination and to imbibe a sense of competition in the mind of the students.

2.2 The Context:

There was a practice of awarding medals to the first, second, third and best graduates of MAKAUT to which the institute is affiliated. The GCECT, being autonomous, was not included in list of these awards. This caused a sense of deprivation in the mind of students of this institute. To encourage students of the institute, first, second, third rank holders of every degree awarding department and best graduate award have been introduced.

2.3 The Practice:

Presently, the institute is celebrating Graduate Day, which is equivalent to convocation of a university, in which the Vice Chancellor of the affiliating university, hands over the medals and degree certificates to the eligible candidates of the institute. The Graduate Day celebration, held with due pomp and grandeur, is a very special occasion for the college as the members of the Governing Body and the Academic Council, participate in the event in large numbers. Eminent people as special guests are invited to give lectures on various aspects of social and professional life before the graduates to create a sense of high spirit among them. In such an environment, receiving medal of the best graduate from the hands of the Vice Chancellor, in presence of so many eminent people, makes the graduate ecstatic.

2.4 Evidence of Success:

The feeling of the first, second, third rank medal winners of each degree awarding departments and best graduate amongst all programmes reverberates among the juniors and bears a message of inspiration or encouragement for better performance to reach the top spots.

2.5 Problems Encountered and Resources Required:

Most of the students join the job just after publication of the result. They find it difficult to attend this Graduate Day Ceremony in the first year of joining. This results in less participation in the ceremony.

Total budget of the ceremony including cost of the medals etc are high. There is no separate grant for the event from the Government. The whole expenditure is managed from the own resources of the institute.

7.3 Institutional Distinctiveness

7.3.1

Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Response:

The Government College of Engineering and Ceramic Technology was established in 1941. It is one of the oldest institutes offering course in Ceramic Technology in India. The alumni of the institute are very well placed in their professional career. This has made this institute distinct from other institute.

The performance of Government College of Engineering and ceramic Technology in the area of academic process is distinctive to its priority.

The institute fixed its priorities as detailed below:

- To make students employable**

One of the most important outcomes of Technical Education is the employability. Personal attributes that contribute to overall employability include commitment, adaptability, honesty and integrity, reliability, ability to deal with pressure, motivation, and cultural fit with the employing organisation. Basically they are the set of achievements, skills, expertise, and personal attributes that help to achieve success in chosen career.

The goal of the institute is also visible from its vision statement “To cultivate excellence in various fields of engineering and technology by imparting core knowledge to the students and to transform the institution into a center of academic excellence and advanced research apart from producing skilled technologist”.

The grooming of students with an eye to infuse different qualities necessary for employability and becoming a complete human being with above mentioned attributes starts from the day a student

joins the institute.

After joining the institute, students take part in the Induction programme. Purpose of Student Induction Programme is to help new students adjust and feel comfortable in the new environment, inculcate in them the ethos and culture of the institution, help them build bonds with other students and faculty members, and expose them to a sense of larger purpose and self exploration.

Every students of the institute are brought under mentoring program. The goal of the mentoring program is to establish a trusting relationship with accountability and responsibility from the mentor and mentee. This programme helps students to feel at home in the institute.

Discipline is a very important attribute to become successful in the career. The institute has a set of code of conducts that are displayed in the portal of the institute for easy dissemination. The institute has a strict attendance monitoring system through ERP software solution. The attendance of the students is messaged to the guardian periodically to make them aware of the performance of their wards.

The institute is an autonomous institute. The curricular of the institue have been updated giving more emphasis on continuous evaluation. This is evident from the academic regulation of the institute. The academic regulation is available in the portal of the institute.

There is a complete transparency in the evaluation system of the institute. The marks of the student In Mid semester examinations and End semester examinations are finalised after students have gone through evaluated answer scripts in from of the evaluator.

The communication skill both verbal and written is a very important component for employabilty in multinational organisations. The language laboratory of the institute takes a very important role to enhance communication skill of the students. A compulsory course of English along with Language laboratory, group discussion and seminar are inbuild in the curriculum.

The institute has ICT enabled class rooms for proper delivery of contents in the class. There is a provision to group slow learners and fast learners in the class. Extra classes are arranged online or offline mode even beyond normal working hour of the institute to help them.

In order to keep students updated of the currents technologies as per requirement of the bussiness houses, elective subjects are introduced. The list of elective subjects varies in each year to keep pace with demand of the industries. Hence the lists of electives are dynamic in nature.

More over students can earn additional twenty credits from courses available in online platform such as NPTEL etc based on their choice to enhance their employability.

Apart from class room teaching, students are exposed to industrial practices in the form of industrial training and internship. An internship is important because it can present the student with new skills and opportunities that may not be received otherwise. Interns gain technical knowledge within the industry of their choice by working directly with professionals in that field. All students of Ceramic Technology and a large number of students of Computer Science and Engineering and Information technology undergo industrial training and intership in reputed industries every year.

Another important component of the curriculum is the project work. Project Work-Based Learning gives a thorough practical exposure to a problem upon which the project is based. Projects are developed generally in groups where students can learn various things such as working together, problem-solving, decision making, and investigating activities. Students are encouraged to complete project work in the industry. In view of this, the final semester curriculum has been made flexible with no course except project for Ceramic technology and Computer Science and Engineering.

Apart from this, experts are invited to deliver lectures on topic of importance for employability and to make students fit for working in a social environment.

The institute makes all efforts to groom the students in such a manner so that they come out at the end of the study as good human beings with nationalistic spirit.

The performances of the students are visible from their placement record and success of the students in competitive examinations such as GATE etc. The good performance and success stories of alumni of this institute are yard stick of academic processes.

In order to achieve the goal, the areas of thrust are:

- Imparting technical knowledge along with sound communication skill - both verbal and written and providing scope for internship in industry
- Conducting NSS activities under the guidance of motivated faculties and encouraging students to participate in various types of competitions and various cultural functions including celebration of International and National days
- Organizing motivating lectures by eminent persons from different walks of life of the society
- Imparting industrial training to provide the scope of extended practical learning and arranging group discussions and seminars to enhance general promptness of mind and the ability of self learning.
- More collaboration with industries and reputed institutions.
- Industrial training of the member of faculties
- Start up facilities for the students.
- Encourage students to enroll for higher studies
- Encourage students to undertake research activities.

File Description	Document
Appropriate webpage in the Institutional website	View Document
Any other relevant information	View Document

5. CONCLUSION

Additional Information :

The Government College of Engineering and Ceramic Technology was established in 1941. It is one of the oldest institutes in India offering training in Ceramic Technology. The platinum jubilee celebration of the institute was held in 2016. The institute is an autonomous institute. The curriculum of the institute is being devised to meet the global requirement. This has given the students of the institute an edge over students of other institutes.

In 2017, Educational excellence award 2017 was conferred on the institute by Zee 24 Ghata news channel.

In 2018, The Principal of the institute was awarded Shikha Ratna award by the Education department of Government of West Bengal and in 2019, the Maulana Abul Kalam University of the Technology (MAKAUT) conferred Teacher of the year award on the Principal.

The institute publishes scientific journal titled "Scientific Voyage" regularly. There are very eminent personalities in the editorial board of this online journal.

The literary talent of the students of the institute is reflected in the contents posted in the wall magazine of the institute. The contents of the wall magazine are changed periodically.

The literary club of the institute published the institute's magazine titled "PRATIBIMBA", meaning reflection. This magazine is multilingual and has different section of arts, stories, poems, sketches, cartoons, travellers diary etc.

The alumni of the institute are very highly placed in the professional field and in the society. The bonding of the Alumni and the institute is very strong through the registered Alumni association of the institute. There are regular activities conducted by the Alumni association of the institute. They also extend their support in grooming the students for professional field.

The students of the institute take proactive role for the cause of the society. During pandemic-COVIC 19, the students extended different types of service to the society. All members of the Government college of Engineering and Ceramic Technology are part of an extended family. They share sorrow and happiness amongst all. They act as a strong support system at the time of need of any members, be it financial or otherwise.

Non-political student's association of the institute extends all sorts of support to the administration for development of the institute.

Concluding Remarks :

The Government College of Engineering and Ceramic technology was established in 1941. In 82 years, since its inception, the Institute has expanded its horizons and attained many milestones. There was a transition from affiliated institute of Calcutta University to affiliated institute of Maulana Abul Klam Azad University of Technology and transformation from mono discipline institute to Multidiscipline institute. With the conferment

of Autonomous status to the institute, the progress of the institute has been accelerated in a very fast pace. There is revision of curriculum as per growing need of the industries as well as the need of the region, nation and global. The academic flexibility introduced in the institute in the form of CBCS, has given students an opportunity to pursue their studies based on their chosen career and professional path. The performance of the students in academics, employments, higher studies and research shows the result of efforts of faculties and staff of the institute. The institute received many research projects that helped the institute to develop many modern laboratories. The introduction of more job oriented certificate course helped the local students to upgrade their skill and to secure a job.

This state funded institute has contributed to the society by providing quality education affordable by all section of the society.

The goal of the institute is to create and successfully implement a strong quality and value that will be system dependent. The accreditation by NAAC will help to achieve this. It also strives to excel in all the endeavors, including teaching, training, research, consultancy, innovation, incubation, entrepreneurship, and outreach activities. The policy of the administration of the institute is to focus on the core values to hold each member of the institution accountable to all stakeholders (students, teachers, staff, guardians, employers and society at large) through integrated processes carried out with due diligence for self-evaluation and continuous improvement.

This may lead the institute to a center of excellence in the field of technical education and research. The accreditation by NAAC with grade A and subsequent conferment of autonomous status to the institute twice has generated the confidence of achieving the goal. The implementation of NEP-2020 will also open many avenues where the institute will be able to excel.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
2.4.4	<p>Percentage of full time teachers working in the institution throughout during the last five years</p> <p>2.4.4.1. Number of full time teachers worked in the institution throughout during the last five years: Answer before DVV Verification : 33 Answer after DVV Verification: 30</p> <p>Remark : Considering teachers who have worked in all the five assessment years</p>																				
3.1.3	<p>Percentage of teachers receiving national/ international fellowship/financial support by various agencies for advanced studies/ research during the last five years</p> <p>3.1.3.1. Number of teachers who received national/international fellowship /financial support by various agencies, for advanced studies / research; year-wise during the last five years Answer before DVV Verification : 7 Answer after DVV Verification: 1</p>																				
3.4.3	<p>Number of research papers published per teacher in the Journals as notified on UGC CARE list during the last five years</p> <p>3.4.3.1. Number of research papers in the Journals notified on UGC CARE list year wise during the last five years Answer before DVV Verification : 182 Answer after DVV Verification: 177</p>																				
3.6.2	<p>Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community year wise during the last five years</p> <p>3.6.2.1. Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community year wise during the last five years.</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>6</td> <td>51</td> <td>25</td> <td>22</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3</td> <td>49</td> <td>23</td> <td>20</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	6	6	51	25	22	2021-22	2020-21	2019-20	2018-19	2017-18	3	3	49	23	20
2021-22	2020-21	2019-20	2018-19	2017-18																	
6	6	51	25	22																	
2021-22	2020-21	2019-20	2018-19	2017-18																	
3	3	49	23	20																	
3.7.1	<p>Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative</p>																				

	<p>research during the last five years</p> <p>Answer before DVV Verification : 208 Answer After DVV Verification :192</p>
5.1.3	<p>Following capacity development and skills enhancement activities are organised for improving students' capability</p> <ol style="list-style-type: none"> 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills) 4. Awareness of trends in technology <p>Answer before DVV Verification : A. All of the above Answer After DVV Verification: B. Any 3 of the above</p>
6.5.3	<p>Institution has adopted the following for Quality assurance:</p> <ol style="list-style-type: none"> 1. Academic and Administrative Audit (AAA) and follow up action taken 2. Conferences, Seminars, Workshops on quality conducted 3. Collaborative quality initiatives with other institution(s) 4. Orientation programme on quality issues for teachers and students 5. Participation in NIRF and other recognized ranking like Shanghai Ranking, QS Ranking Times Ranking etc 6. Any other quality audit recognized by state, national or international agencies <p>Answer before DVV Verification : A. Any 5 or more of the above Answer After DVV Verification: B. Any 4 of the above Remark : As per the supporting documents provided by HEI</p>
7.1.4	<p>Water conservation facilities available in the Institution:</p> <ol style="list-style-type: none"> 1. Rain water harvesting 2. Borewell /Open well recharge 3. Construction of tanks and bunds 4. Waste water recycling 5. Maintenance of water bodies and distribution system in the campus <p>Answer before DVV Verification : A. Any 4 or more of the above Answer After DVV Verification: B. Any 3 of the above Remark : As per the supporting documents provided by HEI</p>

2.Extended Profile Deviations

Extended Profile Deviations
No Deviations