# ANNUAL REPORT 2021-2022



# GOVERNMENT COLLEGE OF ENGINEERING & CERAMIC TECHNOLOGY

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#### **PREFACE**

This Institute (established on 3rd April, 1941), the then College of Ceramic Technology (Bengal Ceramic Institute) has been one of the oldest technological colleges in Kolkata and the only full-fledged college in India offering B. Tech, M. Tech. and Ph. D. programs in Ceramic Technology along with hands on trainings in traditional potteries and other ceramic products since its inception. The college has already completed 75 years of its glorious existence. The alumni of the institute are well established in their professional career and spread all over the world. They are the flag bearers of the institute

Initiating as a Diploma level institute, it was then elevated to a Degree college under Higher Education Department, Government of West Bengal and was affiliated to the University of Calcutta in the year 1962.

The institute has emerged as one of the best temples of learning and started transforming from monodiscipline institute to multi-discipline institute with the introduction of Information Technology and Computer Science & Engineering programs in 2000 and 2001 respectively. Now, the institute was affiliated to Maulana Abul Kalam Azad University of Technology (MAKAUT), formerly West Bengal University of Technology since 2001.

Research & Development are an integral part of this institute of higher learning. The institute has good research activities in the under-graduate level. From 2006-2007, students from different background are reaping the benefit of M. Tech. program in Ceramic Technology. The introduction of M. Tech program in Ceramic Technology has enormously increased the scope & possibilities for research and development. Almost all teachers, students and scholars of the college are involved in research and development activities. M. Tech. program in Information Technology has also started its journey since 2014.

GCECT received World Bank assistance under Technical Education Quality Improvement Programme (TEQIP) Phase- I and successfully reaped tangible benefits by implementing various reform measures as per guidelines resulting into development and upgradation of various laboratories and infrastructure of the whole college in recent past.

The institute also acquired one acre of land from adjacent West Bengal Small Industries Development Corporation Limited (WBSIDCL) to augment its infrastructure.

The institute received prestigious NAAC grad 'A' accreditation, a certification of the quality of the institute in the national benchmark. As a consequence, the institute received the autonomous status from the University grant commission and a substantial grant from Rashtriya Uchchatar Shiksha Abhiyan (RUSA). The granthas been used for the construction of hostel and other infrastructure. Now-a-days, the college has been able to establish its proud position in the country. This institute is not only providing latest technology oriented courses but also is equipped with good laboratory, library and other students' amenities. The students get the scope of being guided by renowned and eminent faculties to build their career.

The annual report of the institute is a reflection of the activities done in a particular year. The year 2021-22 has been an eventful year in which we had to change our conventional teaching learning and administrative processes and continue the new process in the pandemic situation due to COVID-19 which continued from 2020-21.

Several steps have been taken to manage academics including examination during COVID-19 (post March 25, 2020). The institute devised an academic system to ensure the continuity of the academic activities in the best possible ways.

All members of GCECT put their best effort to ensure that the student of the institute receive the best training to become globally competitive professional with all human values to be useful for the society.

Prof. (Dr.) Krishnendu Chakrabarty

Principal
Govt. College of Engg. & Ceramic Technology

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# Vision of the Institute:

To be a centre of excellence in various fields of engineering and technology by imparting core knowledge to the students

# Mission of the Institute:

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.

# (i) Department of Ceramic Technology:

#### Vision:

To emerge as a world class centre for education and research in the field of Ceramics, Glass and allied materials to serve the Industry and the society at large.

#### Mission:

- To generate an environment in the department for advanced research and innovation with a view to imparting quality teaching and training in the area of Ceramics, Glass and allied materials.
- To produce graduates with a strong foundation in the area of Ceramic and Glass Technology to cater to the needs of Industry, Academia and Research organization in India and abroad.
- To emphasize Institute-Industry interaction to make the students aware of real problems in the Industries and solutions thereof.
- To motivate the faculties for meeting the requirement of leaders in industry, academic & research institutes and society.

# (i) Department of Information Technology:

#### Vision:

The Department of Information Technology of this institute envisions itself to be in the top tier departments of the country that will be recognized for its technological advancement in teaching, learning, research and innovation and serve to address evolving global needs.

#### Mission:

- To give high quality education to educate future leaders and contribute to the professional workforce in engineering and technology.
- To inspire learners to excel in research and innovation, collaborative activities, technologies and systems with a positive contribution to the society.

# (i) Department of Computer Science & Engineering:

#### Vision:

The Computer Science & Engineering department of this Institute is committed to become a centre of excellence to meet the sprouting global challenges by imparting education and research of highest quality and thus ensures to maintain its status as a pivotal or nodal agency or a nucleus of the overall technological growth in the domain of Computer Science.

#### Mission:

- To present our student with up-to-date curricula and pedagogy in the computer science and thus ensure that they have a solid foundation in the core concepts, equip them with problem solving and decision-making skills, and prepare them for lifelong learning in the discipline.
- To produce graduates that are knowledgeable, articulate, principled, innovative, confident, and able to think critically
- To provide for and encourages collegial, intellectual and academic growth of its faculty.
- To perform research that advances the state-of-the-art in computer science.
- To inculcates the values enshrined in the Constitution and demonstrate a sense of societal and ethical responsibility in all professional endeavors.

**PART 1: COLLEGE ADMISTRATION** 

#### **COLLEGE ADMISTRATION**

#### 1. Board of Governors (BoG)

1.	Prof. Binay K. Dutta, Former Chairman, West Bengal Pollution Control	Chairman
	Board (Educationist)	
2.	Prof. Mehtab Alam, Jamia Milla University, New Delhi (UGC Nominee)	Member
3	Dr. Arup Kumar Chattopadhayay, MD, National Refractories (Educationist)	Member
4.	The Director of Technical Education, West Bengal (Govt. nominee)	Member
5.	Dr. Jaya Bandyopadhyay, Maulana Abul Kalam Azad University of	Member
	Technology (University Nominee)	
6.	Prof. Bimal Kumar Roy, Former Director, ISI, Kolkata (Educationist)	Member
7.	Dr. Rituparno Sen, Professor & HOD, Ceramic Technology	Member
8.	Dr. Mousumi Maitra, Professor & HOD, Information Technology	Member
9.	Dr. Kalpana Saha Roy, Assistant Professor & HOD, Computer Science and	Member
	Engineering	
10.	Dr. Debdarpan Khan, Associate Professor of Geology & HOD of Basic	Member
	Science, Engineering and Humanities	
11.	Mr. Ranjan Ray, Associate Professor of Chemical Technology	Member
12.	Controller of Examinations, Govt. College of Engg. & Ceramic Technology	Member
13.	Mr. Jayanta Kumar Chowdhury, Registrar	Member
14.	The Principal, Govt. College of Engg. & Ceramic Technology	Ex-Officio
		Member Secretary
	1	l

#### 2. Academic Council

1.	Prof. (Dr.) Krishnendu Chakrabarty, Principal	Ex-Officio Chairman
2.	Prof. Rajat Pal (MAKAUT Nominee)	Member
3.	Prof. Subhasish Basu Majumdar (MAKAUT Nominee)	Member
4.	Prof. Bimal Ray (MAKAUT Nominee)	Member
5.	Prof. Urmila Kar (NITTTR, Kolkata)	Member
6.	Prof. Manoj Kumar Mitra (Ex Professor Jadavpur University)	Member
7.	Dr. Arup Kumar Chattopadhyay, MD, National Refractories	Member
8.	Mr. Prasanta Dutta, Sr. GM, International Business, TRL Krosaki Refractories Limited	Member
9.	Mr. Debasis Majumdar, Associate Director, CDAC Kolkata	Member
10.	Prof. (Dr.) Rituparno Sen, HOD, Ceramic Technology	Member

11.	Prof. (Dr.) Mousumi Maitra, HOD, Information Technology	Member
12.	Dr. Kalpana Saha Roy, HOD, Computer Science and Engineering	Member
13.	Dr. Debdarpan Khan, HOD of Basic Science, Engineering and Humanities	Member
14.	Prof. Srimanta Kumar Patra, Associate Professor of Ceramic Technology	Member
15.	Prof. Ritwik Mondal, Assistant Professor of Information Technology	Member
16.	Prof. Pinaki Mukherjee, Associate Professor of Electronics	Member
17.	Prof. Bimal Pal, Assistant Professor of Computer Science and Engineering	Member
18.	Prof. Partha Haldar, Controller of Examination	Member
19.	Mr. Ranjan Ray (Faculty nominated by the Principal)	Member Secretary

# 3. Internal Quality Assurance Cell (IQAC)

1.	Prof. (Dr.) Krishnendu Chakrabarty	Chairman
	Prof. (Dr.) Rituparno Sen	Coordinator
2.	Prof. (Dr.) Mousumi Maitra	Member
3	Dr. Kalpana Saha Roy	Member
4.	Dr. Debdarpan Khan	Member
5.	Mr. Ranjan Ray	Member
6.	Dr. Kaberi Das	Member
7.	Dr. Partha Haldar	Member
8.	Dr. Srimanta Kumar Patra	Member
9.	Dr. Paramita Dey	Member
10.	Dr. Kingshuk Chatterjee	Member
11.	Mr. Alok Mukherjee	Member
12.	Mr. Biswarup Das	Member
13.	Mr. Jayanta Kumar Chowdhury	Member
14.	Ms. Sulagna Chatterjee	Member
15.	Mr. Amit Kr. De, President, A. K. industrial Corporation	Member
16.	Dr. A. K. Chattopadhyay, MD, National Refractories	Member
17.	Local MLA or his representative	Member
18.	Mr. Prasanta Dutta, Sr. GM, International Marketing, TRL Krosaki Refractories	Member
19.	Mr. Dipankar Banerjee, Marketing Director, Fosbel India Limited	Member
20.	Mr. Ritesh Mukherjee, Associate Director, C-DAC, Kolkata	Member
21.	Smt. Sarada Chatterjee, Guardian	Member
22.	Ms. Rajashi Chatterjee, Student	Member

#### 4. Board of Studies (BoS)

#### (i) Department of Ceramic Technology

1.	Prof. (Dr.) Rituparno Sen (HOD)	Chairman
2.	All Faculty members of the department	Members
3.	Mr. Prasanta Dutta, Senior GM, International Business, TRL Krosaki Refractories	Member
4.	Dr. Siddhartha Mukherjee, Former Professor of Metallurgy, JU	Member
5.	Dr. Arup Ghosh, Former Chief Scientist & Head, Refractories Division, CSIR-CGCRI, Kolkata	Member
6.	Mr. Srikrishna Manna, CSIR-CGCR, Kolkata	Member
7.	Dr. Sankar Ghatak, Former Scientist, CSIR-CGCRI, Kolkata	Member
8.	Dr. Devendra Kumar, Professor & Head, Ceramic Engineering, IIT-BHU	Invitee Member

# (ii) Department of Information Technology

1.	Prof. (Dr.) Mausumi Maitra Mazumdar (HOD)	Chairman
2.	All Faculty members of the department	Members
3.	Dr. Sushmita Mitra, Professor, Machine Intelligence Unit, ISI, Kolkata: Subject Expert (nominated by the Academic Council)	Member
4.	Dr. Devadatta Sinha, Ex-Professor, Dept. of Computer Science & Engineering, C.U.: Subject Expert (nominated by the Academic Council)	Member
5.	Dr. Nabendu Chaki, Professor, Dept. of Computer Science & Engineering, C.U Subject Expert (nominated by the Vice-Chancellor)	Member
6.	Mr. Sagar Dutta, Assistant Manager, TCS – Representative from Industry	Member
7.	Dr. Aditya Bagchi, Ex-Professor, Dept. of Electronics and Communication Engineering, ISI, Kolkata (Invitee) - Subject Expert (nominated by the Principal)	Member
8.	Dr. Kamarujjaman – Post Graduate Alumnus of IT department	Member

#### (iii) Department of Computer Science and Engineering

1.	Dr. Kalpana Saha (Roy) (HOD)	Chairman
2.	All Faculty members of the department	Members
3.	Prof. Mita Nasipuri, Professor, Jadavpur University	Member
4.	Prof. Nabendu Chaki, Professor, Calcutta University	Member
5.	Prof. Sankhayan Choudhury, Professor Calcutta University	Member
6.	Mr. Arijit Ukil, Senior Scientist at TCS Research	Member

#### 5. Administrative and Academic Positions

1.	Principal	Prof. (Dr.) Krishnendu Chakrabarty
2.	Controller of Examinations	Dr. Partha Haldar
3.	HOD of Ceramic Technology	Prof. (Dr.) Rituparno Sen
4.	HOD of Information Technology	Prof. (Dr.) Mousumi Maitra (Majumdar)
5.	HOD of Computer Science & Engineering	Dr. Kalpana Saha (Roy)
6.	HOD of Basic Science, Engineering & Humanities	Dr. Debdarpan Khan
7.	Registrar	Mr. Jayanta Kumar Chowdhury
8.	Accounts Officer	Ms. Sulagna Chatterjee
9.	Librarian	Dr. Nikhil Kumar Jas
10.	Advisor of Training & Placement Cell	Mr. Prithwijit Guha

#### **6. Faculty Members**

Department of Ceramic Technology		
Sl.	Name	Designation
1.	Dr. Rituparno Sen	Professor and Head
2.	Dr. Saikat Maitra (On Lien to MAKAUT as V.C.)	Professor
3.	Mr. Ranjan Ray	Associate Professor
4.	Dr. Srimanta Kumar Patra	Associate Professor
5.	Mr. Ram Chandra Das	Associate Professor
6.	Dr. Kaberi Das	Associate Professor
7.	Dr. Tapas Kumar Bhattacharya	Assistant Professor
8.	Dr. Barun Kumar Sanfui	Assistant Professor
9.	Dr. Madhu Sudan Dutta	State Aided College Teacher (SACT)
10.	Ms. Ruma Mallik	SACT
11	Mr. Pappu Halder	SACT
12	Ms. Sangita Ghosh	SACT

Depar	Department of Information Technology		
Sl.	Name	Designation	
1.	Dr. Mausumi Maitra (Majumdar)	Professor and Head	
2.	Dr. Paramita Dey	Assistant Professor	
3.	Mr. Ritwik Mondal	Assistant Professor	
4.	Mrs. Shyama Mondal	Assistant Professor	
5.	Mr. Pranay Adak	Assistant Professor	
6.	Mr. Atanu Kumar Paul	Assistant Professor	
7.	Ms. Shampa Mahato	SACT	
8.	Ms. Maumita Maity	SACT	
9.	Mr. Sudip Kuila	SACT	
10.	Ms. Ananya Biswas	SACT	
11.	Ms. Bidisha Ghosh	SACT	
12.	Mrs. Minakshi Acharya	SACT	
13.	Dr. Rayan Saptarshi Roy	SACT	
14.	Mrs. Susmita Samaddar	SACT	

Department of Computer Science & Engineering		
Sl.	Name	Designation
1.	Dr. Kalpana Saha (Roy)	Assistant Professor
2.	Mr. Bimal Pal	Assistant Professor
3.	Dr. Soumit Chowdhury	Assistant Professor
4.	Mrs. Sohini Dasgupta (On Leave)	Assistant Professor
5.	Dr. Partha Ghosh	Assistant Professor
6.	Mr. Ranjit Kumar Mandal	Assistant Professor
7.	Dr. Kingshuk Chatterjee	Assistant Professor
8.	Mr. Bishwarup Das	SACT
9.	Dr. Bijoy Kumar Mandal	SACT
10.	Mrs. Rima Bhowmick	SACT
11.	Mrs. Sucharita Mondal	SACT
12.	Mrs. Pallavi Pyne	SACT
13.	Mrs. Amrita Biswas	SACT
14.	Mr. Aritra Mahapatra	SACT

Depai	Department of Basic Science, Engineering & Humanities				
SI.	Name	Designation			
1.	Dr. Krishnendu Chakrabarty	Professor of Electrical Engineering and Principal			
2.	Dr. Debdarpan Khan	Associate Professor of Geology and Head			
3.	Dr. Partha Haldar	Assistant Professor of Mechanical Engineering			
4.	Dr. Pinaki Mukherjee	Associate Professor of Electronics			
5.	Dr. Alok Mukherjee	Assistant Professor of Electrical Engineering			
6.	Dr. Saibal Ray	Associate Professor of Physics			
7.	Dr. Rajkumar Chakraborty	Associate Professor of Physics			
8.	Dr. Prasenjit Paul	Assistant Professor of Physics			
9.	Dr. Nilesh Mazumder	Assistant Professor of Physics			
10.	Mr. Ambika Prasad Mukhopadhyay	Assistant Professor of Chemistry			
11.	Mrs. Indrani Nag Chaudhuri	Assistant Professor of Economics			
12.	Mrs. Sonali Sarkar	SACT (Ethics)			
13.	Mrs. Ipsita Pathak	SACT (Communicative English)			
14.	Mr. Firoj Mahamud	SACT (Mathematics)			

# 7. Supporting Staff of the college

1.	Mr. Samir Biswas	UDC & Storekeeper
2.	Mr. Krishnendu Chatterjee	P.A. to Principal
3.	Mr. Rajib Chakraborty	Technical Assistant
4.	Mr. Jiban Chandra Dey	Lab Attendant
5.	Mr. Rahul Mitra	Fitter
6.	Mr. Jibit Changdar	Supervisor Instructor
7.	Mrs. Jhunu Rani Pramanick	Group D
8.	Ms. Kismatara Khatun	Group D
9.	Mrs. Tumpa Sarkar	Group D
10.	Mr. Soumya Chatterjee	Group D
11.	Mr. Tarak Paul	Group D
12.	Supriya Kanrar	Group D
13.	Mr. Jiwat Kr. Rajbhar	Durwan
14.	Mr. Birbal Das	Durwan
15.	Ms. Suman Jamadarni	Sweeper
16.	Mr. Amar Karan	Cook

**PART 2: ACADEMICS** 

#### **ACADEMICS**

#### 1. Academic Programmes

	Type of programme	Name of Department	Approved student strength
i)		Ceramic Technology	40 + 02 (TFW)
ii)	Bachelor of	Information Technology	40 + 02 (TFW)+01 (DQ)
	Technology		
iii)		Computer Science and Engineering	40 + 02 (TFW)
iv)	Master of	Ceramic Technology	18
v)	Technology	Information Technology	18

TFW: Tuition Fee Waiver, DQ: Defence Quota

#### 2. Admission Process

- (i) B.Tech. students are admitted based on rank of West Bengal Joint Entrance Examination and subsequent Counseling conducted by West Bengal Joint Entrance Examination Board.
- (ii) Selection to M. Tech. students are done on the basis of a valid score in GATE or PGET conducted by MAKAUT.

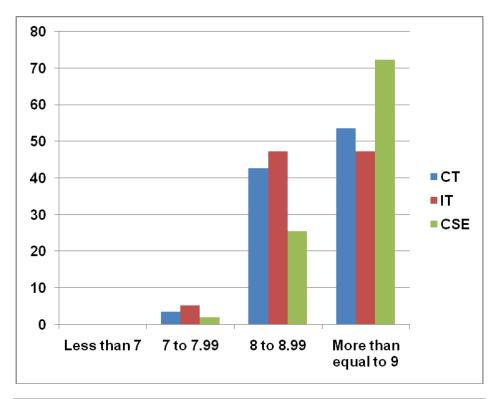
#### 3. Academic performance of the Final Year students (2021-22)

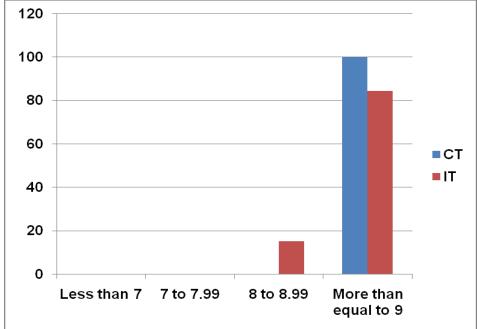
#### **B.Tech. Students**

Stream/DGPA	< 7	7-7.99	8-8.99	≥9	Total
CT (Total 45 students)	0	1	12	15	28
Percentage	0	3.6	42.8	53.6	100
IT (Total 32 students)	0	2	18	18	38
Percentage	0	5.2	47.4	47.4	100
CSE (Total 32 students)	0	1	12	34	47
Percentage	0	2.1	25.5	72.4	100

#### M.Tech. Students

Stream/DGPA	< 7	7-7.99	8-8.99	≥9	Total
CT (Total 45 students)	0	0	0	4	4
Percentage	0	0	0	100	100
IT (Total 32 students)	0	0	2	11	13
Percentage	0	0	15.4	84.6	100





The results depicted in the Bar Diagram exhibit that majority of the students attains a DGPA more than 8 on a 10 point scale.

#### 4. Modalities of holding examinations during COVID-19 pandemic

The academic session 2021-22, similar to the earlier session 2020-21, was partially affected by the COVID-19 pandemic; especially the initial part of the session, where the institution was forced to take the following measures:

- 1. There was a shift from existing examination system due to the pandemic of COVID-19. The following changes were implemented:
  - (i) The continuous evaluation / internal assessment remained as it was as per existing old or new academic regulations.
  - (ii) Instead of 75 marks of each theory paper in Semester-End examination, it was decided to hold:
  - a) 50 marks online MCQ test, and
  - b) 25 marks viva-voce, for each theory paper.
- 2. Google Form template was used for Online MCQ examinations with Marks of MCQ varying depending upon the type of questions.
- 3. In the event of an issue of poor net connectivity or some other unforeseen reasons, if few students were unable to appear in the online test, a similar test was arranged after few days, repeating the whole process for the particular students.
- 4. Project evaluation was decided to be held by arranging Online presentation in Google G Suite Platform and / or organizing Viva Voce in Google Meet / WhatsApp video calling mode for awarding grades.
- 5. Comprehensive (Grand) Viva examination was conducted by a panel of teachers on different subject groups, viz. Science, General Engineering, Specific technological / engineering subjects' clusters, only through online mode (Google Meet / WhatsApp Video Call).
- 6. The practical examinations (other than Project and Grand Viva) were assessed in the same manner as the Project assessment.

The college resumed normal classes during the end of the session 2021-22. The end semester examination was also conducted off line following the earlier pattern of examination, as well as distribution of marks.

#### 5. Industrial Training/Internship programme

Students undergo Industrial Training/Internship after 6<sup>th</sup> Semester. The following Table indicates the name of the Industries/Companies and students participated and duration.

(i) Internship details of B.Tech. CT (2021-2022)		
Name of the activity Participant		Name of the Industries/Companies/Organizations
Industrial Training	3	Aditya Birla Insulators
	4	Vesuvius India LTD
	2 Saint gobain glass Pvt. I	Saint gobain glass Pvt. LTD
	4	OCL
	6	SRU ( IFICO )/Ranchi Road
	3	SRU (Bhilai )
	2	HR Johnson
	4	RHI magnesita

(ii) Internship programme of B.Tech. IT (2021-2022)			
Name of the activity Participant Name of the Industries/Companies/Organizations			
Industrial Training	1	Indian Statistical Institute	
	31	Internshala	
	8	Ogmatech lab	
	1	Udemy	

	(iii) Internship	programme of B.Tech. CSE (2021-2022)
Name of the activity	Participant	Name of the Industries/Companies/Organizations
	1	Advanced Tensorflow Custom Models, Layers, and Loss Functions
		with TensorFlow
	1	Core Java internshala
	1	Data Science
	1	Front-End Web UI Frameworks and Tools: Bootstrap 4
	1	HTML, CSS, and Javascript for Web Developers
	1	Introduction to machine learning
	2	Java programming- solving problems with software
	1	Learn data science Deep learning, Machine learning, NLP & R
	1	Learn JAVA Programming - Beginner to Master
	1	Machine Learning & Deep Learning in Python & R
	2	Machine Learning A-Z: Hands on Python & R In Data Science
	1	Machine Learning Certification Course for Beginners
	1	Machine Learning for All
	1	Machine Learning-Stanford University-Coursera
	2	Mastering Data Structures & Algorithms using C and C++
1		Modern JavaScript From The Beginning
	1	Natural Language Processing with Sequence Models
	2	Neural Networks and Deep Learning (Coursera)
	3	Object-Oriented Data Structures in c++
	4	Programming Foundations with JavaScript, HTML and CSS
	1	PYTHON BASICS
	1	R Programming
	1	SQL for Data Science
	1	The Ultimate MySQL Bootcamp : Go From SQL Beginner to
		expert
	1	The Complete 2021 Web Development Bootcamp
	1	The Complete React Native Course
	1	THE COMPLETE REACT NATIVE COURSE(2021 EDITION)

1	The React Bootcamp
1	The Ultimate MySQL bootcamp: Go from SQL beginner to expert
	(Udemy)
2	Web Development
2	Web Development and Designing

#### 6. Students' Placement status

There is a Placement Cell in the College for three streams, i.e. CT, IT and CSE, which arranges On Campus and Off Campus Interviews for students. The following Table indicates the name of the Industries/Companies and number of students accepted job.

Name of the Student Placed for 2022 outgoing batch of Government College of Engg. & Ceramic Technology

Department of Ceramic Technology

Sl. No.	Roll No.	Name	Name of the Employer
1	GCECTB-R18-1002	ANIKET HALDER	RHI MAGNESITE
2	GCECTB-R18-1004	AVIK MANNA	PGP
3	GCECTB-R18-1005	AYAN CHITRAKAR	ARAVIND CERAMICS
4	GCECTB-R18-1006	BIKRAM DAS	IFGL
5	GCECTB-R18-1007	DEBJOY BARDHAN	RIL(Reliance Ind.Ltd.)
6	GCECTB-R18-1008	DEBOJYOTI GOON	Saint Gobain
7	GCECTB-R18-1009	DIPANKAR CHAUHAN	CALDARYS
8	GCECTB-R18-1012	MAINAK GHOSH	RIL(Reliance Ind.Ltd.)
9	GCECTB-R18-1013	MRITWIKA BHATTACHARYYA	RIL(Reliance Ind.Ltd.)
10	GCECTB-R18-1014	PARANTAP DEV	TRL Krosaki
11	GCECTB-R18-1016	PRATIM KUMAR MONDAL	TRL Krosaki
12	GCECTB-R18-1017	PRAYASH SAHA	CALDARYS
13	GCECTB-R18-1018	PURBA SAHA	RHI MAGNESITE
14	GCECTB-R18-1019	RAHUL ROY	CUMI
15	GCECTB-R18-1021	RICK ROY	TRL Krosaki
16	GCECTB-R18-1022	ROHIT ROUTH	RIL(Reliance Ind.Ltd.)
17	GCECTB-R18-1023	RUPRAG KUNDU	TDK
18	GCECTB-R18-1024	SAMIUL SARDAR	Saint Gobain
19	GCECTB-R18-1025	SANJIB KUMAR MAITY	CUMI
20	GCECTB-R18-1027	SHREYA BARUA	TDK
21	GCECTB-R18-1028	SOURAV MONDAL	Saint Gobain
22	GCECTB-R18-1029	SOURAV NASKAR	CUMI
23	GCECTB-R18-1030	SUDIP KUMAR NAYAK	IFGL
24	GCECTB-R18-1031	SURAJIT DAS	M. N. DASTUR
25	GCECTB-R18-1033	SWARALIPI KUMAR	Saint Gobain

26	GCECTB-L19-1001	LABANI SARDAR	TDK
27	GCECTB-L19-1002	NABABRATO DAS	BALCO

#### **Department of Information Technology**

Sl. No.	Roll No.	Name	Name of the Employer
1	GCECTB-R18-2001	ADITI MANDAL	Cognizant
2	GCECTB-R18-2002	ALI AYESH PERVEZ	Wipro
3	GCECTB-R18-2003	AMAN SHARMA	Infosys, TCS
4	GCECTB-R18-2004	ANIRUDDHA CHATTERJEE	Cognizant, Wipro
5	GCECTB-R18-2005	ARIJIT GHOSH	Cognizant, Wipro, Cloud Kaptaan
6	GCECTB-R18-2006	AYAN MONDAL	Cognizant
7	GCECTB-R18-2007	BAPUN MAHATA	Infosys
8	GCECTB-R18-2008	BINITA PRATIHAR	Cognizant, TCS, Wipro
9	GCECTB-R18-2009	BITAN CHAKRABORTY	Wipro, HCL
10	GCECTB-R18-2010	BRATATI CHAKRABORTY	Cognizant, Wipro, TCS, IBM, Clud Kaptaan
11	GCECTB-R18-2011	DEBARAN DAS	Cognizant
12	GCECTB-R18-2012	DEBASHIS GANGULY	Wipro
13	GCECTB-R18-2014	DIMITRI GHOSH	Cognizant, Wipro
14	GCECTB-R18-2019	MANIK GOENKA	Infosys, TCS
15	GCECTB-R18-2021	NITESH KUMAR RAI	Wipro, TCS
16	GCECTB-R18-2024	RIKTAM KUNDU	Wipro, TCS
17	GCECTB-R18-2025	RONAK BANERJEE	HCL, Infosys
18	GCECTB-R18-2026	SANKHADEEP MAZUMDER	Cognizant, Wipro
19	GCECTB-R18-2027	SANKHADEEP RAY	Cognizant, Wipro, LTI
20	GCECTB-R18-2028	SAYAN PAUL	Cognizant, Wipro, Cloud Kaptaan
21	GCECTB-R18-2029	SHREYA GANGOPADHYAY	Cognizant, Wipro
22	GCECTB-R18-2030	SOHAM DAS	Infosys, Cognizant
23	GCECTB-R18-2031	SOHAM SINHA	Cognizant, Wipro, TCS
24	GCECTB-R18-2033	SOURAV SARANGI	Cognizant
25	GCECTB-R18-2035	SUBRATA MAJI	Cognizant
26	GCECTB-L19-2008	RITUL DE	Nihilent

#### **Department of Computer Science & Engineering**

Sl. No.	Roll No.	Name	Name of the Employer
1	GCECTB-R18-3003	AKASH ROY	TCS
2	GCECTB-R18-3004	ARIJIT DUTTA	Cognizant
3	GCECTB-R18-3005	AVISEK MONDAL	Wipro

4	GCECTB-R18-3008	DEBSMITA BANERJEE	Cognizant
5	GCECTB-R18-3013	MANTHAN CHOWDHARY	Mindtree
6	GCECTB-R18-3015	MONISH GHOSH	TCS, INFOSYS
7	GCECTB-R18-3019	REET ROY	Cloudkaptan
8	GCECTB-R18-3021	SANGRAM MODAK	TCS
9	GCECTB-R18-3023	SAYAK MUKHOPADHYAY	CloudKaptan
10	GCECTB-R18-3026	SINJINI DAM	Capgemini
11	GCECTB-R18-303O	SUBHADIP NAYEK	Nihilent limited
12	GCECTB-R18-3035	AKASH MUKHERJEE	Applied Research Works - COZEVA
13	GCECTB-R18-3037	RAJASHI CHATTERJEE	Wipro, IBM, Cognizant, Epam Systems
14	GCECTB-R18-3038	SOUHARDYA MANDAL	Kreeti Technologies
15	GCECTB-L19-3005	PUSPITA POLLEY	Qualtech Consultants Pvt. Ltd.
16	GCECTB-L19-3007	RUBINA KHATOON	Infosys, Neebal technology, Cloud kaptan

#### 7. Students in higher studies

A few students opted for higher studies in India and/or abroad. The list below is for the academic year 2021-22.

Name of student enrolled for higher education	Programme completed	Name of institution joined	Name of programme admitted to
Sambit Bose	B.Tech in Computer Science Engg.	IIT, Kharagpur	M.Tech
Debmalya Sur	B.Tech in Computer Science Engg.	ISM, Dhanbad	M.Tech
Gourab Chatterjee	B.Tech in Computer Science Engg.	IIT, Patna	M.Tech
Akash Roy	B.Tech in Computer Science Engg.	IIT, Kanpur	M.Tech

#### 8. Details of students who qualified in state/ national/ international examinations

SI No	Name	Registration number for the exam	Qualifying Examination
1	DEBASISH DAS	XE22S66507074	GATE
2	JOYDEEO BANERJEE	CS22S14039057	GATE
3	PROLAY MALLIK	CS22S16509150	GATE
4	ABHINANDAN PATRA	CS22S16507560	GATE
5	AKASH ROY	CS22S16520251	GATE
6	DEBMALYA SUR	CS22S14039144	GATE
7	ARUNIMA CHAUDHURI	CS22S16509515	GATE

8	DEBDOOT ROY CHOWDHURY	CS22S16511243	GATE
9	ARCHIT KUMAR	CS22S16510527	GATE
10	GOURAB CHATTERJEE	CS22S16508229	GATE
11	SOMBIT BOSE	CS22S16511390	GATE
12	SUBHODEEP CHANDA	CS22S16516144	GATE
13	SAYAN MONDAL	CS22S16508080	GATE

#### 9. A few facts regarding the academic performance of students

- Number of students benefitted by scholarships and freeships provided by the Government during the year: 98
- Number of students benefitted by scholarships and freeships provided by the institution and nongovernment agencies during the year: 60
- Number of students benefitted from guidance/coaching for competitive examinations and career counselling offered by the institution during the year: 11
- Number of students who qualified in state/ national/ international examinations (e.g.: IIT-JAM/NET/SET/JRF/ GATE /GMAT /CAT/ GRE/ TOEFL/Civil Services/State government examinations) during the year : 13
- Number of students who appeared in state/ national/ international examinations (e.g.: IIT-JAM/ NET/SLET/GATE/GMAT/CAT/ GRE/TOEFL/Civil Services/State government examinations) during the year: 13

PART 3: RESEARCH PROGRAMMES

#### RESEARCH PROGRAMMES

# 1. Sponsored / Consultancy projects

Funding Agency	Type of Project	Project Title	Role in Project	Grant (Rs.)	Duration
DST	Major Research Project	Development of Insulating Refractories and Abrasion Resistant Ceramics from Coal Ash	Dr. B.K. Sanfui, Assistant Professor, Principal Investigator	61,52,450	07.05.2016 - 06.08.2020
SERB	Minor Research Project	Development of Pre/In-situ Formed CNT Reinforced MgAl2O4 Spinel Matrix Composites	Dr. B.K. Sanfui, Assistant Professor, Principal Investigator	30,06,000	04.05.2017 - 03.11.2020
IREL	Major Research Project	Study of Sinterability and Product Development based on Zirconia Powders to be Supplied by IREL	Dr. B.K. Sanfui, Assistant Professor, Principal Investigator	58,73,800	28.08.2019 - 27.08.2022
SERB	Major Research Project	Synthesis, Characterizations and Evaluation of Pre/In-Situ Formed YAG-CNT Reinforced Al <sub>2</sub> O <sub>3</sub> based Nanostructured Composites	Dr. B.K. Sanfui, Assistant Professor, Principal Investigator	23,24,560	26.03.2021- 25.03.2024
WB-DST	Minor Research Project	Fabrication of CuPc nanotube based all-organic flexible photodiode for light detection and solar energy conversion	Dr. Nilesh Mazumder, Assistant Professor, Principal Investigator	12,55,000	2019-2022
WB-DST	Minor Research Project	Studies on Compact Stellar Objects	Dr. Saibal Ray, Associate Professor, Principal Investigator	4,48,800	02.05.2019 - 01.05.2021
WB-DST	Minor Research Project	Studies on the Microstructural characterization of ceramic materials using Image processing Technique	Dr. T.K. Bhattacharya, Assistant Professor, Principal Investigator	8,68,800	28.01.2019 - 27.01.2021

# 2. Ph.D. supervision by the teachers

Name of the Supervisor	Name of the student with qualification	Title of the thesis	University where registered	Status of the programme
Dr. Krishnendu Chakrabarty, Principal	Amlan Chakrabarti	Study and development of some energy management schemes in electrical power system	MAKAUT	Awarded
Dr. R. Sen, Professor	Pulak Barua	Development and characterisation of inorganic-organic nanobiocomposites for craniofacial applications	MAKAUT	Enrolled
Dr. R. Sen, Professor	Sudipto Saha	Effect of solid waste on sintering and properties of tri-axial porcelain body	MAKAUT	Enrolled

Name of the Supervisor	Name of the student with qualification	Title of the thesis	University where registered	Status of the programme
Dr. R. Sen, Professor	Sovan Khan	Development of high alumina castable by partial substitution of alumina aggregate by electrical porcelain waste	MAKAUT	Enrolled
Dr. K. Das, Associate Professor	Ram Karan (M.Tech)	Some studies on the Preparation and Characterizations of Melt Derived Bioactive Glass and Glass-ceramics In SiO <sub>2</sub> -Na <sub>2</sub> O- CaO-P <sub>2</sub> O <sub>5</sub> System	University of Calcutta	Awarded
Dr. K. Das, Associate Professor	Pameli Pal	Studies on Lithium Disilicate Glass-ceramics	University of Calcutta	Pursuing
Dr. T.K. Bhattacharya, Assistant Professor	Partha Haldar M.E. (Mechanical Engineering)	The Effect of Nano-oxide addition in Alumina Ceramics and its impact on Mechanical and Tribological Properties	Jadavpur University	Awarded
Dr. B.K. Sanfui, Assistant Professor	Paramita Das M.Tech. (Ceramics)	Synthesis and Characterization of YAG and CNT reinforced Magnesium aluminate Spinel Composites	Calcutta University	Pursuing
Dr. B.K. Sanfui, Assistant Professor	Savan Kumar Sharma M.Tech. (Ceramics)	Studies on Nano-porous alumina based ceramics membrane for separation of flue gas	MAKAUT	Pursuing
Dr. Mausumi Maitra <i>Professor</i>	Kamarujjaman	Studies on Image De-noising and Segmentation of Medical Images	MAKAUT	Awarded

#### 3. Research/Review papers published in National/International Journals

Name of the Author(s)	Departme nt of the Author(s)	Title of the Paper	Name of the Journal	Month and Year of publication	ISSN
Tapas kumar Bhattachar ya et al	CT, GCECT	Tribological behaviour of MgO doped alumina ceramics in dry sliding	Materials Today: Proceedings, Scopus, Elsevier	Available online 20 May 2022	2214- 7853
Tapas kumar Bhattachar ya et al	CT, GCECT	Tribological Behaviour of Alumina Ceramics with Nano TiO2 as a sintering aid in Non-Conformal Contact	Journal of Tribology, ASME, SCIE, IF: 2.045	08.12.2021	0742- 4787
Tapas kumar Bhattachar ya et al	CT, GCECT	Innovative approach to evaluate the wearing of nano TiO2 doped alumina ceramics in the light of image modelling	Journal of Tribology, ASME, SCIE, IF: 2.045		0742- 4787
Barun Kumar	CT, GCECT	Unveiling the role of structure–property correlation and its validation towards	Molecular System Design	Oct-21	2058- 9689

Sanfui et al		engineering the application potential of solgel derived mesoporous gamma-alumina DOI: 10.1039/d1me00102g	and Engineering		
Barun Kumar Sanfui et al	CT, GCECT	Engineering of the structural and morphological characteristics of MWCNTs employing a nano dimensional binary oxide coating with enhanced thermal oxidation resistance properties for the tailoring of their reinforcement potential DOI: 10.1039/d1nj05807j	New Journal of Chemistry	Mar-22	1144- 0546
Barun Kumar Sanfui et al	CT, GCECT	Fabrication, characterization and optimization of industrial alpha alumina powders based ceramic membrane supports and its applicative potential for CO2/N2 separation https://doi.org/10.1016/j.jcou.2022.102121	Journal of CO2 Utilisation	June, 2022	2212- 9820
Soumit chowdhury et al	CSE, GCECT	INNOVATIVE LOW-COST PERIMETER SECURITY GADGET WITH IN-BUILT MECHANISM TO ENSURE CONFIDENTIALITY, AUTHENTICITY AND NON-REPUDIATION	International Journal of Computer Networks & Communicatio ns (indexed in scopus)	conditional ly accepted for publication	ISSN 0974 - 9322 (Online) ; 0975 - 2293 (Print)
Soumit chowdhury et al	CSE, GCECT	Multi Layer Digital Validation of Candidate Service Appointment With Digital Signature and Bio Metric Authentication Approach	International Journal of Computer Networks & Communicatio ns (indexed in scopus)	conditional ly accepted for publication	ISSN 0974 - 9322 (Online) ; 0975 - 2293 (Print)
Kinshuk Chatterje et al	CSE, GCECT	Application of Poincaré analogous time-split signal based statistical correlation for transmission line fault classification. doi: https://doi.org/10.1007/s00202-021-01369-4	Electrical Engineering, 104 (2), 1057– 1075	August, 2021	1432- 0487 (E) 0948- 7921 (P)
Kinshuk Chatterje et al	CSE, GCECT	Indoor cardiovascular health monitoring system under Covid-19 situations. doi: https://doi.org/10.33263/BRIAC123.3488350	Biointerface Research in Applied Chemistry, 12(3), 3488- 3500	Accepted: 29 July, 2021 Published: 09 August, 2021	2069- 5837
Kinshuk Chatterje et al	CSE, GCECT	Supervised Learning Aided Multiple Feature Analysis for Freshness Class Detection of Indian Gooseberry (Phyllanthus emblica). doi: https://doi.org/10.1007/s40030-021- 00585-2	Journal of The Institution of Engineers (India): Series A, 103 (1), 247–261	October, 2021	2250- 2157 (E) 2250- 2149 (P)
Kinshuk	CSE,	Freshness Assessment of Indian Gooseberry	Journal of	Oct-21	2234-

Chatterje et al	GCECT	(Phyllanthus emblica) Using Probabilistic Neural Network. doi: https://doi.org/10.1007/s42853-021- 00116-8	Biosystems Engineering, 46 (4), 399– 416		1862 (E) 1738- 1266 (P)
Kinshuk Chatterje et al	CSE, GCECT	Comparative Analysis of Statistical and Supervised Learning Models for Freshness Assessment of Oyster Mushrooms. doi: https://doi.org/10.1007/s12161-021-02161-7	Food Analytical Methods.	November, 2021	1936- 976X (E) 1936- 9751 (P)
Kinshuk Chatterje et al	CSE, GCECT	Edge Detection Aided Geometrical Shape Analysis of Indian Gooseberry (Phyllanthus emblica) for Freshness Classification. doi: https://doi.org/10.1007/s12161-021- 02206-x	Food Analytical Methods.	January, 2022	1936- 976X (E) 1936- 9751 (P)
Kinshuk Chatterje et al	CSE, GCECT	Artificial Neural Network based Dimension Prediction of Rectangular Microstrip Antenna. doi: https://doi.org/10.1007/s40031-021- 00710-6	Journal of The Institution of Engineers (India): Series B	February, 2022	2250- 2114 (E) 2250- 2106 (P)
Kinshuk Chatterje et al	CSE, GCECT	Development of Artificial Vision System for Quality Assessment of Oyster Mushrooms. doi: https://doi.org/10.1007/s12161-022- 02241-2	Food Analytical Methods.	March, 2022	1936- 976X (E) 1936- 9751 (P)
Kinshuk Chatterje et al	CSE, GCECT	Correlation-Aided 3D Vector Distance Estimation-Based Quality Assessment of Indian Gooseberry. doi: https://doi.org/10.1007/s40030-022- 00616-6	Food Analytical Methods.	March, 2022	2250- 2157 (E) 2250- 2149 (P)
Kinshuk Chatterje et al	CSE, GCECT	Quality Assessment of Tindora (Coccinia indica) Using Poincare Plot and Cartesian Quadrant Analysis. doi: https://doi.org/10.1007/s12161-022-02287-2	Food Analytical Methods	April, 2022	1936- 976X (E) 1936- 9751 (P)
Kinshuk Chatterje et al	CSE, GCECT	DETECTION OF EDIBILITY OF AMLA (Emblica officinalis) THROUGH PCA BASED IMAGE ANALYSIS. doi: https://doi.org/10.24818/18423264/56.2.22.06	Economic Computation & Economic Cybernetics Studies & Research, 56(2)	June, 2022	0424- 267X (P) 1842- 3264 (E)

Mousumi Maitra et al	IT, GCECT	MRI-based brain tumour image detection using CNN based deep learning method	Neuroscience Informatics	March, 2022	2772- 5286
Paramita Dey et al	IT, GCECT	A Survey on the Role of Centrality as Seed Nodes for Information Propagation in Large Scale Network	ACM/IMS Transactions on Data Science	August, 2021	https://d oi.org/1 0.1145/ 346537 4
Partha Haldar et al	BSEH, GCECT	Tribological behaviour of MgO doped alumina ceramics in dry sliding	Materials Today: Proceedings, Scopus, Elsevier	Available online 20 May 2022	2214- 7853
Partha Haldar et al	BSEH, GCECT	Scope for Cupola Slag Reuse in Construction: A Sustainable Green Solution	International Journal of Environmental Science and Technology, SCIE, Springer, I.F: 2.860	Accpeted on 24.04.2022	1735- 1472
Partha Haldar et al	BSEH, GCECT	Tribological Behaviour of Alumina Ceramics with Nano TiO2 as a sintering aid in Non-Conformal Contact	Journal of Tribology, ASME, SCIE, IF: 2.045	08.12.2021	0742- 4787
Partha Haldar et al	BSEH, GCECT	Experimental Investment and Optimization of MRR in µ-ECDM Process by Taguchi, RSM, PSO and ANN	Suranaree Journal of Science and Technology; Scopus	Accepted on 04.10.2021	0858- 849X
Partha Haldar et al	BSEH, GCECT	Potential of Pumped Hydro Storage as an Electrical Energy Storage in India	Journal of the Institution of Engineers (India): Series C; Scopus	01-Sep-21	2250- 0545
Partha Haldar et al	BSEH, GCECT	Innovative approach to evaluate the wearing of nano TiO2 doped alumina ceramics in the light of image modelling	Journal of Tribology, ASME, SCIE, IF: 2.045	#######	0742- 4787
Partha Haldar et al	BSEH, GCECT	Cupola Slag Reutilization for Sustainable Waste Management: Review and Economic Analysis	International Journal of Environmental Science and Technology, SCIE, Springer, I.F: 2.860	Jul-21	1735- 1472
Alok Mukherjee	BSEH, GCECT	Innovative approach to evaluate the wearing of nano TiO2 doped alumina ceramics in the	Journal of Tribology,	August, 2021	1528- 8897

et al		light of image modelling. doi: https://doi.org/10.1115/1.4051904	Vol. 144(5) / 054501.		(E) 0742- 4787 (P)
Alok Mukherjee et al	BSEH, GCECT	Application of Poincaré analogous time-split signal based statistical correlation for transmission line fault classification. doi: https://doi.org/10.1007/s00202-021-01369-4	Electrical Engineering, 104 (2), 1057– 1075	August, 2021	1432- 0487 (E) 0948- 7921 (P)
Alok Mukherjee et al	BSEH, GCECT	Bilingualism as a Protective Factor in Aphasia. doi: https://doi.org/10.1080/23279095.2021.19608 37	Applied Neuropsycholo gy: Adult.	August, 2021	2327- 9109 (E) 2327- 9095 (P)
Alok Mukherjee et al	BSEH, GCECT	Indoor cardiovascular health monitoring system under Covid-19 situations. doi: https://doi.org/10.33263/BRIAC123.3488350	Biointerface Research in Applied Chemistry, 12(3), 3488- 3500	Accepted: 29 July, 2021 Published: 09 August, 2021	2069- 5837
Alok Mukherjee et al	BSEH, GCECT	Supervised Learning Aided Multiple Feature Analysis for Freshness Class Detection of Indian Gooseberry (Phyllanthus emblica). doi: https://doi.org/10.1007/s40030-021- 00585-2	Journal of The Institution of Engineers (India): Series A, 103 (1), 247–261	October, 2021	2250- 2157 (E) 2250- 2149 (P)
Alok Mukherjee et al	BSEH, GCECT	Freshness Assessment of Indian Gooseberry (Phyllanthus emblica) Using Probabilistic Neural Network. doi: https://doi.org/10.1007/s42853-021-00116-8	Journal of Biosystems Engineering, 46 (4), 399– 416	October, 2021	2234- 1862 (E) 1738- 1266 (P)
Alok Mukherjee et al	BSEH, GCECT	Comparative Analysis of Statistical and Supervised Learning Models for Freshness Assessment of Oyster Mushrooms. doi: https://doi.org/10.1007/s12161-021-02161-7	Food Analytical Methods.	November, 2021	1936- 976X (E) 1936- 9751 (P)
Alok Mukherjee et al	BSEH, GCECT	Edge Detection Aided Geometrical Shape Analysis of Indian Gooseberry (Phyllanthus emblica) for Freshness Classification. doi: https://doi.org/10.1007/s12161-021- 02206-x	Food Analytical Methods.	January, 2022	1936- 976X (E) 1936- 9751 (P)
Alok Mukherjee	BSEH, GCECT	Artificial Neural Network based Dimension Prediction of Rectangular Microstrip Antenna.	Journal of The Institution of	February, 2022	2250- 2114

et al  Alok  Mukherjee et al	BSEH, GCECT	doi: https://doi.org/10.1007/s40031-021-00710-6  Application of bio-inspired optimization algorithms in food processing. doi: https://doi.org/10.1016/j.crfs.2022.02.006	Engineers (India): Series B  Current Research in Food Science.	February, 2022	(E) 2250- 2106 (P) 2665- 9271
Alok Mukherjee et al	BSEH, GCECT	Development of Artificial Vision System for Quality Assessment of Oyster Mushrooms. doi: https://doi.org/10.1007/s12161-022-02241-2	Food Analytical Methods.	March, 2022	1936- 976X (E) 1936- 9751 (P)
Alok Mukherjee et al	BSEH, GCECT	Correlation-Aided 3D Vector Distance Estimation-Based Quality Assessment of Indian Gooseberry. doi: https://doi.org/10.1007/s40030-022- 00616-6	Food Analytical Methods.	March, 2022	2250- 2157 (E) 2250- 2149 (P)
Alok Mukherjee et al	BSEH, GCECT	Quality Assessment of Tindora (Coccinia indica) Using Poincare Plot and Cartesian Quadrant Analysis. doi: https://doi.org/10.1007/s12161-022-02287-2	Food Analytical Methods	April, 2022	1936- 976X (E) 1936- 9751 (P)
Alok Mukherjee et al	BSEH, GCECT	DETECTION OF EDIBILITY OF AMLA (Emblica officinalis) THROUGH PCA BASED IMAGE ANALYSIS. doi: https://doi.org/10.24818/18423264/56.2.22.06	Economic Computation & Economic Cybernetics Studies & Research, 56(2)	June, 2022	0424- 267X (P) 1842- 3264 (E)
S. Ray et al.	BSEH, GCECT	Analytic radiation model for perfect fluid under homotopy perturbation method	Ind. J. Phys.	2021	ISSN: 0974- 9845
S. Ray et al.	BSEH, GCECT	Anisotropic stars in Brans-Dicke gravity	Chin. J. Phys.	2021	ISSN: 0 577- 9073
S. Ray et al.	BSEH, GCECT	Role of anisotropy on the tidal deformability of compact stellar objects	Phys. Sci. Forum	2021	ISSN: 2673- 9984
S. Ray et al.	BSEH, GCECT	Decoupling gravitational sources in f(R,T) gravity under class I spacetime	Phys. Dark Univ.	2021	ISSN: 2 212- 6864
S. Ray et al.	BSEH, GCECT	Anisotropic compact stars: Constraining model parameters to account for physical features of tidal Love numbers	Ann. Phys.	2021	ISSN: 0003- 4916
S. Ray et	BSEH,	A relativistic compact stellar model of	Adv. High		ISSN:

al.	GCECT	anisotropic quark matter mixed with dark energy	Energy Phys		1687- 7357
S. Ray et al.	BSEH, GCECT	Tidal effect in ADM formulation under the foliations of spacetime	Chin. J. Phys.	2022	ISSN: 0 577- 9073
S. Ray et al.	BSEH, GCECT	Traversable wormhole on the brane with non-exotic matter: a broader view	Class. Quantum Grav.	2022	ISSN (print): 1361- 6382 ISSN (online) : 0264- 9381
S. Ray et al.	BSEH, GCECT	Anisotropic compact star with a linear pressure–density relationship	Int. J. Mod. Phys. D	2022	ISSN (print): 0218- 2718 ISSN (online) : 1793- 6594
S. Ray et al.	BSEH, GCECT	Relativistic charged stellar model of the Pant interior solution via gravitational decoupling and Karmarkar conditions	Mod. Phys. Lett. A	2022	ISSN: 0217- 7323
S. Ray et al.	BSEH, GCECT	Traversable wormhole models in gravity	Int. J. Mod. Phys. A	2022	ISSN: 0217- 751X
S. Ray et al.	BSEH, GCECT	Anisotropic stars in modified gravity: An extended gravitational decoupling approach	Chin. Phys. C	2022	ISSN 1674- 1137
Pinaki Mukherjee et al	Electroni cs & Communi cationEn gineering	Artificial Neural Network based Dimension Prediction of Rectangular Microstrip Antenna. doi: https://doi.org/10.1007/s40031-021- 00710-6	Journal of The Institution of Engineers (India): Series B	February, 2022	2250- 2114 (E) 2250- 2106 (P)

# 4. Book Chapter Published / Accepted

Sl. No.	Name of the Teacher	Title of the Book published	Year	ISBN	Name of the Publisher
1	Tapas Kumar Bhattacharya et al	Lecture Notes in Mechanical Engineering. in Friction Coefficient Analysis of Nano- crystalline TiO2-Added Alumina Ceramics	2021	978-981-16- 2346-2; DOI: 10.1007/978-981- 16-2347-9_20	Springer, Singapore.
2	Saibal Ray	Classical Extensions and Alternative Theories of Gravity	2021	ISSN: 724059	AHEP, Hindawi

Ī	3	Saibal Ray	String Theory and Mathematical	2021	ISSN: 2075-1680	AXIOMS, MDPI
		-	Physics			

#### 5. Additional information regarding the research works in this institute:

Bibliometrics of the publications during the year based on average Citation Index in Scopus/Web of Science/PubMed

- Total number of Citations in Scopus during the year: 41
- Total number of Citations in Web of Science during the year: 45
- Total number of Publications in Scopus during the year: 33
- Total number of Publications in Web of Science during the year: 35

Bibliometrics of the publications during the year based on Scopus/Web of Science – h-Index of the University

- h-index of Scopus during the year: 45
- h-index of Web of Science during the year: 26

PART 4: EXTENSION PROGRAMMES

#### **EXTENSION PROGRAMMES**

#### 1. Award / recognition of the teacher

Name of the teacher awarded national/ international fellowship/financial support	Name of the Award/Fellowship	Month and Year of Award	Awarding Agency
Saibal Ray	Top Ten Scientist	01/07/2021 31/06/2022	AD Scientific Index, USA
Saibal Ray	Fellow of Royal Astronomical Society	01/07/2021 31/06/2022	Royal Astronomical Society, London
Saibal Ray	Associateship	01/08/2020 31/07/2023	UGC affiliated IUCAA, Pune

# 2. Details of grants received from Government and Non-governmental agencies for research projects, endowments, Chairs in the institution during the year

Name of the Principal Investigator/ Co- Investigator (if applicable)	Department of the Principal Investigator/ Co- Investigator	Name of the Funding Agency	Type (Government /Non- Government)	Funds provided	Month and Year of receving the grant	Duratio n of the Project (in days)
N. Mazumder	Physics	WB-DST	Government	281400	Mar-22	1095
T.K. Bhattacharya	Ceramic Technology	WB-DST	Government	314400	Jun-22	1095
B.K. Sanfui	Ceramic Technology	IREL	Government	673400	Mar-22	1460
B.K. Sanfui	Ceramic Technology	SERB	Government	Nil	N.A.	1095

#### 3. National Service Scheme (NSS)

Name of the activity	Dates	Number of participants
International Women's Day Celebration	08-03-2022	20
Rally on Environmental Awareness	26.04.2022	30
World Environment Day Celebration	05.06.2022	10
International Yoga Day Celebration	21.06.2022	8

#### 4. The College journal: Scientific Voyage

A quarterly research journal published in the college under an editorial board with national and international experts in the fields [URL: http://www.scientificvoyage.net/index.php/sv].

# 5. Sports and cultural events / competitions organized by the institution

Name of the event/competition	Date of event/competition
Rap Battle Aakriti( Inter College Fashion Show) 3 team, 10 members per team	29.04.2022
Battle of bars ( Inter college)4 Perticipants,	29.04.2022
Musicon(Inter College Singing Competition), 8 perticipants	30.04.2022
Badminton(Inter College Competition) 40 teams, 02 Players each team	30.04.2022
Cricket(Inter college Tournament), 12 teams, 8 players each teams	30.04.2022
Footbal (Inter College Tournament))12 teams, 10 players in each team	30.04.2022
Karmatek (Inter College Competiton)	01.05.2022

#### 6. College Events

Date	Title	Venue
09.04.22	Sky Watching Camp by Science Club of GCECT	GCECT Campus
28.05.22	Farewell Ceremony of pass out students of 2022	Conference Room, GCECT
21.06.22	Celebration of the International day of Yoga 2022	GCECT 5th Floor
08.07.22	One-day workshop on Teaching-Learning process	Conference Room, GCECT
26.07.22	Inaugural programme of student club, ByteMonk (under the sponsorship of AICTE-SPICES)	Auditorium, GCECT
29.07.22	Teaching - learning methods in the context of present days learners	Conference Room, GCECT
05.08.22	Essay Completion with a theme of 'Education system in 21st century in Indian perspective: Prospects and Problems' as a part of celebrating the 75 years of Independence of India	GCECT
05.08.22	Painting/Collage exhibition with a theme of '75 years of Independence' as a part of celebrating the 75 years of Independence of India	GCECT
15.08.22	Independence Day Celebration	GCECT campus & Auditorium
22.08.22 - 27.08.22	One Week Faculty Development Programme on AWS (Amazon Web Services)	Online (organized at GCECT)
05.09.2022	Teachers' Day celebration	GCECT Auditorium
15.09.2022	Engineer's Day celebration: Entrepreneurship a tool for empowerment	GCECT Auditorium
16.09.2022	Student's Grooming Session 1	GCECT Auditorium
17.09.2022	1st Plantation Drive by the Alumni Association	GCECT Auditorium
17.09.2022	Biswakarma Puja	GCECT campus
11.10.2022	Induction Programme	GCECT, Excursion

01.12.2022	Rally by NSS unit	GCECT campus & Locality
21.12.2022	Raman-Armstrong Memorial Lecture on Space - Sciences, Technology & Industries (3rd Edition)	GCECT Auditorium
04.01.2023	Intra College Quiz on Science & Astronomy	GCECT Auditorium
06.01.2023	Sky Watching Camp	GCECT Hostel
13.01.2023	Symposium (Essay competition) on Swami Vivekananda - A role model for the youth in India	GCECT Auditorium
18-19.01.23	Intra college football competition	GCECT Campus
24.01.2023	Intra College Debate Competition	GCECT Auditorium
26.01.2023	Republic Day & Saraswati Puja celebration	GCECT Campus

#### 7. College Event Gallery

#### **Engineer's Day Celebration, 2022:**













## **Teachers' Day Celebration, 2022:**









Inaugural programme of student club, ByteMonk (under the sponsorship of AICTE-SPICES):



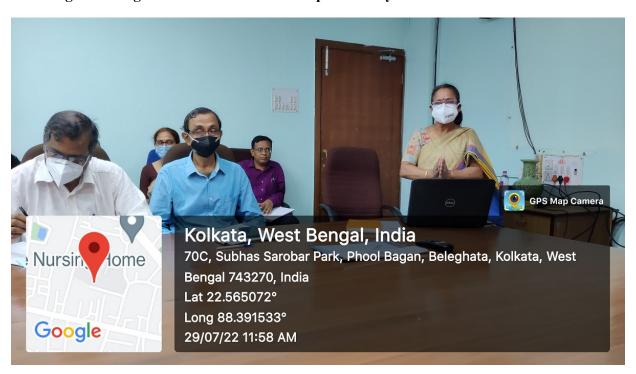


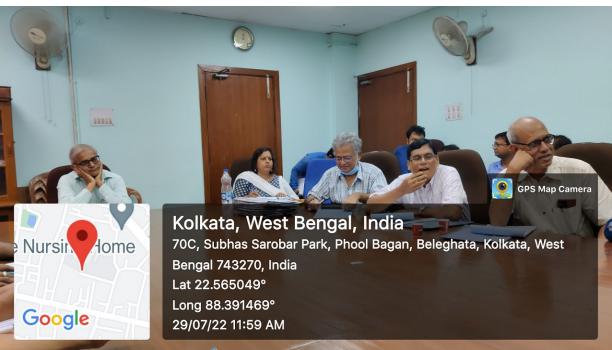






**Teaching - learning methods in the context of present day's learners:** 

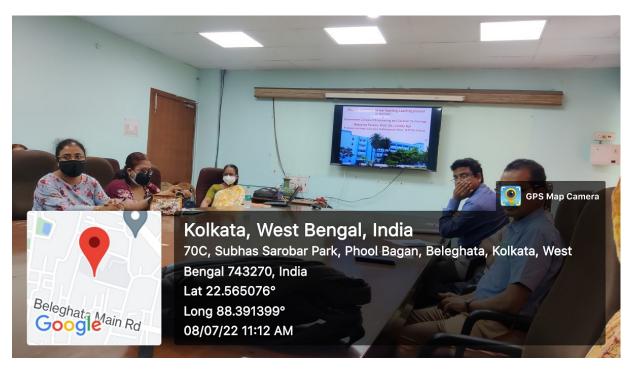








#### One-day workshop on Teaching-Learning process:





## Sky watching camp







# Raman-Armstrong Memorial Lecture on Space - Sciences, Technology & Industries (3rd Edition)











Students' Induction Programme, 2022:

















# List of teachers undergoing online/ face-to-face Faculty Development Programmes (FDPs)/ Management Development Programmes (MDPs) during the session 2021-22

Name of the Faculty	Type of Program (Professional Development Programmes, Orientation/Induction Programmes, Refresher Course, Short Term Course	Duration (in No. of days)	start Date and end date	Name of the Organising Institution
Prof. Bimal Pal	IP Practical Aspects - Patent drafting & filing, trademark & copyright filing, organised by NPTEL	6 days	13-07-2021 to 18-07- 2021	NPTEL
Prof. Bimal Pal	Environmental Engineering Laboratory: Equipment & Procedure. Organised by NITTTR Kolkata	12 days	26-07-2021 to 06-08- 2021	NITTTR, Kolkata
Prof. Bimal Pal	Inculcating Universal Human Values in Technical Education Organised by AICTE	5 days	27-09-2021 to 01-10- 2021	AICTE
Prof. Partha Haldar	Induction program on "Modern Concept on Refractory Lining in Iron and Steel making" and "Spectrum of Application of Ceramic Engineering" organised by the Department of Ceramic Technology GCECT	1 day	18.09.2021 to 18.09.2021	Department of Ceramic Technology GCECT
Prof. Partha Haldar	e-National Level Awarness Programme on "SAMBHAV" organised by the Ministry of micro, small and medium enterprises, Govt. of India	1 day	24.11.2021 to 24.11.2021	Ministry of micro, small and medium enterprises, Govt. of India
Prof. Partha Haldar	FDP on "New Age Materials and its Advanced Applications" organised by the Department of Mechanical Engineering, Karunya Institute of Technology.	6 days	12.08.2021 to 17.08.2021	Department of Mechanical Engineering, Karunya Institute of Technology
Prof. Partha Haldar	short term training programme on "Community Development through Technical Institutes" by National Institute of Technical Teachers' Training and Research, Kolkata	5 days	23.08.2021 to 27.08.2021	NITTTR, Kolkata
Prof. Partha Haldar	completed FDP on "Patent Search for Engineers and Lawyers" offered by NPTEL- AICTE		August to October, 2021	NPTEL-AICTE
Prof. Partha Haldar	completed the short term training programme on "Engineering Drawing using Software" by National Institute of Technical Teachers' Training and Research, Kolkata	5 days	24.01.2022 to 28.01.2022	NITTTR, Kolkata
Prof. Partha Haldar	completed the short term training programme on "Introduction to Finite Element method in Engineering" by National Institute of Technical Teachers' Training and Research, Kolkata	12 days	07.02.2022 to 18.02.2022	NITTTR, Kolkata
Prof. Partha Haldar	completed the short term training programme on "Estimating & Costing of Non- conventional Energies" by National Institute of Technical Teachers' Training and Research, Kolkata	5 days	21.02.2022 to 25.02.2022	NITTTR, Kolkata
Prof. Soumit Chowdhury	How to Write Thesis and Research paper (organized by NITTTR-Kolkata)	5 days	02-08-2021 to 06-08- 2021	NITTTR, Kolkata

Prof. Soumit Chowdhury	Education for Post-Millennial Learner (organized by Govt. General Degree College, Kalna)	1 day	19-07-2021 to 19-07- 2021	Govt. General Degree College, Kalna
Prof. Soumit Chowdhury	Induction Program (organized by Dept. of CT, Govt. College of Engg. & Ceramic Technology)	1 day	18-09-2021 to 18-09- 2021	Dept. of CT, Govt. College of Engg. & Ceramic Technology
Prof. Soumit Chowdhury	Induction Program (organized by Dept. of IT & CSE, Govt. College of Engg. & Ceramic Technology)	1 day	18-09-2021 to 18-09- 2022	Dept. of IT & CSE, Govt. College of Engg. & Ceramic Technology
Prof. Soumit Chowdhury	Wipro Certfied Faculty Programme on Java Full Stack Top Up (organized by wipro)	12 days	13-06-22 to 24-06-22	Wipro Ltd
Prof. Kingshuk Chatterjee	Theory of Computation (FDP organized by NPTEL)		July to September, 2021	NPTEL
Prof. Partha Ghosh	FDP on Data Science (ATAL)	5 days	22-2-22 to 26-2-22	School of Computer Sciences, Kavayitri Bahinabai Chaudhari North Maharashtra University under AICTE Training And Learning (ATAL) Academy
Prof. Partha Ghosh	FDP on Computational Mathematics using Computer Algebra Systems with Application to Machine Learning (ATAL)	5 days	11-2-22 to 15-2-22	Institute of Chemical Technology under AICTE Training And Learning (ATAL) Academy

