

# ANNUAL REPORT

## 2020-2021



### GOVERNMENT COLLEGE OF ENGINEERING & CERAMIC TECHNOLOGY

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## **PREFACE**

This Institute (established on 3<sup>rd</sup> 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 mono-discipline 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 grant has 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 2020-21 has been an eventful year in which we had to change our conventional teaching learning and administrative processes and adapt a new process in the pandemic situation due to COVID-19.

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

### ***Mission of the Institute:***

- To impart high quality technical education that will produce globally competitive engineers & technologists.
- To inculcate entrepreneurial skill and leadership quality amongst potential students.
- To stress upon acquiring advanced knowledge and research acumen among faculties and students.
- To create compassionate, responsible and innovative global citizens.

## **(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.

## **(ii) 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.

## **(iii) 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**

## **PART 1: COLLEGE ADMISTRATION**

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

1.	Prof. Binay K. Dutta, Former Chairman, West Bengal Pollution Control Board (Educationist)	Chairman
2.	Prof. Mehtab Alam, Jamia Milla University, New Delhi (UGC Nominee)	Member
3	Dr. Arup Kumar Chattopadhyay, 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 Technology (University Nominee)	Member
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 Engineering	Member
10.	Dr. Debdarpan Khan, Associate Professor of Geology & HOD of Basic Science, Engineering and Humanities	Member
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

### **2. Academic Council**

1.	Prof. (Dr.) Krishnendu Chakrabarty, Principal	Chairman
2.	Prof. Manoj Kumar Mitra, Former Dean, Jadavpur University	Member
3.	Prof. Rajat Kr. Pal, Professor, Department of C.S.E, University of Calcutta	Member
4.	Dr. Subhasish Basu Majumdar, Professor, Materials Science Centre, IIT Kharagpur	Member
5.	Mr. Debasis Mazumdar, Associate Director, CDAC, Kolkata	Member
6.	Mr. Prasanta Dutta, Sr. GM, International Marketing, TRL Krosaki Refractories	Member

7.	Dr. Arup Kumar Chattopadhyay, MD, National Refractories	Member
8.	Dr. S.R. Bhadra Chowdhury, Department of Electronics, IEST, Shibpur	Member
9.	Prof. (Dr.) Rituparno Sen, HOD, Ceramic Technology	Member
10.	Prof. (Dr.) Mousumi Maitra, HOD, Information Technology	Member
11.	Dr. Kalpana Saha Roy, HOD, Computer Science and Engineering	Member
12.	Dr. Debdarpan Khan, HOD of Basic Science, Engineering and Humanities	Member
13.	Controller of Examinations	Member
14.	Dr. Srimanta Patra	Member
15.	Dr. Rajkumar Chakraborty	Member
16.	Dr. Paramita Dey	Member
17.	Dr. Soumit Chowdhury	Member
18.	Mr. Ranjan Ray	Member Secretary

### 3. Internal Quality Assurance Cell (IQAC)

1.	Prof. (Dr.) Krishnendu Chakrabarty	Chairman
2.	Prof. (Dr.) Mousumi Maitra	Member
3.	Dr. Debdarpan Khan	Member
4.	Dr. Kalpana Saha Roy	Member
5.	Mr. Ranjan Ray	Member
6.	Dr. Kaberi Das	Member
7.	Mr. Biswarup Das	Member
8.	Mr. Jayanta Kumar Chowdhury	Member
9.	Accounts Officer, GCECT	Member
10.	Mr. Amit Kr. De, President, A. K. industrial Corporation	Member
11.	Dr. A. K. Chattopadhyay, MD, National Refractories	Member
12.	Local MLA or his representative	Member

13.	Mr. Prasanta Dutta, Sr. GM, International Marketing, TRL Krosaki Refractories	Member
14.	Mr. Dipankar Banerjee, Marketing & Technology Director, Vesuvius India Ltd	Member
15.	Mr. Ritesh Mukherjee, Associate Director, C-DAC, Kolkata	Member
16.	Mr. Nanda Paul, Guardian	Member
17.	Mr. Ranabir Paul, Student Representative	Member
18.	Controller of Examinations, GCECT	Member
19.	Prof. (Dr.) Rituparno Sen	Coordinator

#### **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.	Sri Joyanta Das – Postgraduate alumnus of the 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. Arup Roy, Principal Consultant at Ericsson	Member

## 5. Recommendations by BOS

The BOS of all departments have approved the syllabi of 5<sup>th</sup> and 6<sup>th</sup> semester under new academic regulation after inclusion of modifications and suggestions of the expert of the BOS.

## 6. Administrative and Academic Positions

1.	Principal	Prof. (Dr.) Krishnendu Chakrabarty
2.	Controller of Examinations	Mr. Partha Halder
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

## 7. Faculty Members

<i>Department of Ceramic Technology</i>		
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

<i>Department of Information Technology</i>		
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***

<b>Sl.</b>	<b>Name</b>	<b>Designation</b>
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
15.	Dr. Rajib Biswas	SACT

#### ***Department of Basic Science, Engineering & Humanities***

<b>Sl.</b>	<b>Name</b>	<b>Designation</b>
1.	Dr. Krishnendu Chakrabarty	Professor of Electrical Engineering and Principal
2.	Dr. Debdarpan Khan	Associate Professor of Geology and Head
3.	Dr. Krishnendu Dutta	Associate Professor of Mathematics

4.	Mr. Partha Haldar	Assistant Professor of Mechanical Engineering
5.	Dr. Pinaki Mukherjee	Associate Professor of Electronics
6.	Mr. Alok Mukherjee	Assistant Professor of Electrical Engineering
7.	Dr. Saibal Ray	Associate Professor of Physics
8.	Dr. Rajkumar Chakraborty	Associate Professor of Physics
9.	Dr. Prasenjit Paul	Assistant Professor of Physics
10.	Dr. Nilesh Mazumder	Assistant Professor of Physics
11.	Dr. Debdulal Maity	Assistant Professor of Chemistry
12.	Mr. Ambika Prasad Mukhopadhyay	Assistant Professor of Chemistry
13.	Mrs. Indrani Nag Chaudhuri	Assistant Professor of Economics
14.	Mrs. Sonali Sarkar	SACT (Ethics)
15.	Mrs. Ipsita Pathak	SACT (Communicative English)
16.	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. Rahul Mitra	Fitter
5.	Mr. Jiban Chandra Dey	Lab Attendant
6.	Mrs. Jhunu Rani Pramanick	Peon
7.	Ms. Kismatara Khatun	Peon
8.	Mrs. Pampa Sarkar	Peon
9.	Mr. Soumya Chatterjee	Peon
10.	Mr. Jiwat Kr. Rajbhar	Durwan
11.	Mr. Birbal Das	Durwan
12.	Ms. Suman Jamadarni	Sweeper

## **PART 2: ACADEMICS**

## **PART 2: ACADEMICS**

### **1. Academic Programmes**

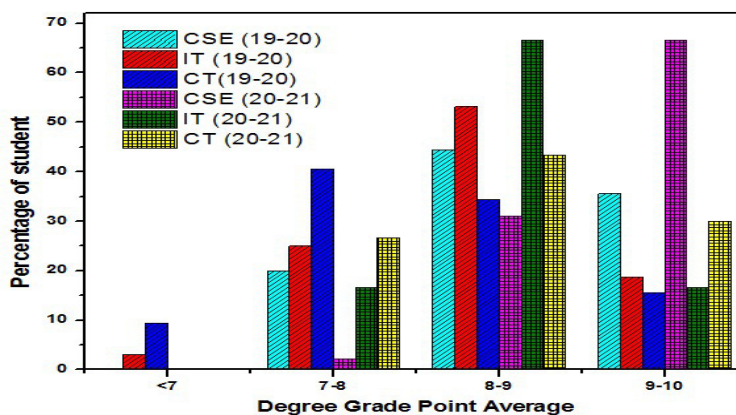
	Type of programme	Name of Department	Approved student strength
i)	Bachelor of Technology	Ceramic Technology	40 + 02 (TFW)
ii)		Information Technology	40 + 02 (TFW)+01 (DQ)
iii)		Computer Science and Engineering	40 + 02 (TFW)
iv)	Master of Technology	Ceramic Technology	18
v)		Information Technology	18

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 (2019-20 & 2020-21)**



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

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.

#### 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) Training details of B.Tech. CT (2020-2021)		
<i>Name of the activity</i>	<i>Participant</i>	<i>Name of the Industries/Companies/Organizations</i>
Industrial Training	7	TATA Steel
	6	ABI
	4	H&R Johnson
	3	OCL
	2	PGP Glass
	4	SRU

<b>(ii) Internship programme of B.Tech. IT (2020-2021)</b>		
<i>Name of the activity</i>	<i>Participant</i>	<i>Name of the Industries/Companies/Organizations</i>
Internship programme	2	SmartBridge
	1	Tablt.com
	1	MinimumQue
	1	International Model UN
	6	Udemy
	1	Webel
	5	Coursera
	8	Internshala Trainings
	3	CodeAcademy
	3	NPTEL
	1	TCSION
	2	Globsyn
Talent Next Prog	55	Wipro Technologies

<b>(iii) Internship programme of B.Tech. CSE (2020-2021)</b>
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<i>Name of the activity</i>	<i>Participant</i>	<i>Name of the Industries/Companies/Organizations</i>
Internship programme	1	React Bootcamp
	2	Web Development
	2	Web Development and Designing
	2	Ultimate MySQL bootcamp: Go from SQL beginner to expert (Udemy)
	2	Neural Networks and Deep Learning (Coursera)
	3	Object-Oriented Data Structures in C++
	1	Advanced Tensorflow Custom Models, Layers, and Loss Functions with TensorFlow
	1	Machine Learning for All
	1	SQL for Data Science
	2	Java programming- solving problems with software
	1	Python Basics
	1	Complete React Native Course (2021 Edition)
	1	Modern JavaScript From The Beginning
	1	Machine Learning & Deep Learning in Python & R
	4	Programming Foundations with JavaScript, HTML and CSS
	1	HTML, CSS, and Javascript for Web Developers
	1	Machine Learning-Stanford University (Coursera)

<i>Name of the activity</i>	<i>Participant</i>	<i>Name of the Industries/Companies/Organizations</i>
Internship programme	1	Data Science
	1	R Programming
	1	Front-End Web UI Frameworks and Tools: Bootstrap 4
	1	Complete 2021 Web Development Bootcamp
	1	Complete React Native Course
	1	Natural Language Processing with Sequence Models
	2	Mastering Data Structures & Algorithms using C and C++
	1	Learn data science Deep learning, Machine learning, NLP & R
	1	Learn JAVA Programming - Beginner to Master
	2	Machine Learning A-Z: Hands on Python & R in Data Science
	1	Machine Learning Certification Course for Beginners
	1	Introduction to machine learning
	1	Core Java (Internshala)
	1	Java Programming: Solving Problem with software
	1	Computer science and engineering

## 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.*

<b>(i) Placement details of B.Tech. CT (2020-2021)</b>	
<i>Offer from On campus</i>	<i>Number of students accepted job offer</i>
Champion Ceramics	5
FOSBEL	2
RHI	3
Heat Works	2
Calderys	4
Vesuvius	2
Vishakha	2
HR Johnson	1
PGP Glass	1
Saint Gobain	1
National Refractories	1
Mohakoshal Refractories	1

<b>(ii) Placement details of B.Tech. IT (2020-2021)</b>	
<i>Offer from On campus</i>	<i>Number of students accepted job offer</i>
TCS	4
Infosys	1
Wipro	1
CTS	1
Tablt.Com	1
Nihilent Technologies Limited	1
Pwc	1

<b>(iii) Placement details of B.Tech. CSE (2020-2021)</b>	
<i>Offer from On campus</i>	<i>Number of students accepted job offer</i>
Infosys	4
TCS	12
Cognizant	2
GEOGO	1
Hitachi Vantara	1
WIPRO	2
CredAble	1
PwC	1

## 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 2020-21.*

<i>Name of the students</i>	<i>Name of the institutions/organizations</i>
Amitava Chatterjee	MBA
Ritesh Kumar Jha	MTech
Ritika Sinha	MTech
Subhajit Halder	MTech
Subhajit Jana	Qualified GRE
Sweta Sarkar	MTech
Avijit Kuila	MTech

## 8. Students' award/recognition

*Every year some students show their talent in various Innovative Projects and thus have been selected for award/recognition by different Awarding Agencies. The list below is for the academic year 2020-21.*

<i>Title of Innovation</i>	<i>Name of Awardees</i>	<i>Awarding agency</i>
Preparation and characterization of Aluminium Borate Refractory	K.A. Ahmed and M.R. Gazi	Winner of Inter-College Technical Paper Presentation Competition @ CALDECONCLAVE 2020 (online)
Comparative Study of Open CV Inpainting Algorithms	P. Chatterjee, S. Jana and S. Ghosh	Glob. J. Comput. Sci. Tech. (2021)

## **PART 3: RESEARCH PROGRAMMES**

## **PART 3: RESEARCH PROGRAMMES**

### **1. Sponsored / Consultancy projects**

<i><b>Funding Agency</b></i>	<i><b>Type of Project</b></i>	<i><b>Project Title</b></i>	<i><b>Role in Project</b></i>	<i><b>Grant (Rs.)</b></i>	<i><b>Duration</b></i>
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 MgAl <sub>2</sub> O <sub>4</sub> 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**

<i><b>Name of the Supervisor</b></i>	<i><b>Name of the student with qualification</b></i>	<i><b>Title of the thesis</b></i>	<i><b>University where registered</b></i>	<i><b>Status of the programme</b></i>
Dr. S. Ray, Associate Professor	Sourav Roy Chowdhury, M.Sc. (Physics)	Compact Stars under Finslers Geometry	IEST, Shibpur	Awarded
Dr. S. Ray, Associate Professor	Suparna Biswas, M.Sc. (Physics)	Studies on strange compact stars	IEST, Shibpur	Awarded

<i>Name of the Supervisor</i>	<i>Name of the student with qualification</i>	<i>Title of the thesis</i>	<i>University where registered</i>	<i>Status of the programme</i>
Dr. S. Ray, <i>Associate Professor</i>	Biplab Paik, M.Sc. (Physics)	Semi-classical inflation and black holes	Aliah University	Pursuing
Dr. S. Ray, <i>Associate Professor</i>	Rikpratik Sengupta, M.Sc. (Physics)	Studies on wormholes in braneworld gravity	Aliah University	Pursuing
Dr. K. Das, <i>Associate Professor</i>	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	Thesis submitted in March 2021
Dr. K. Das, <i>Associate Professor</i>	Pameli Pal	Studies on Lithium Disilicate Glass-ceramics	University of Calcutta	Pursuing
Dr. T.K. Bhattacharya, <i>Assistant Professor</i>	Partha Halder M.E. (Mechanical Engineering)	The Effect of Nano-oxide addition in Alumina Ceramics and its impact on Mechanical and Tribological Properties	Jadavpur University	Pursuing
Dr. B.K. Sanfui, <i>Assistant Professor</i>	Paramita Das M.Tech. (Ceramics)	Synthesis and Characterization of YAG and CNT reinforced Magnesium aluminate Spinel Composites	Calcutta University	Pursuing
Dr. B.K. Sanfui, <i>Assistant Professor</i>	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	Pursuing

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

<i>Name of the author</i>	<i>Title of the paper</i>	<i>Name of the journal</i>	<i>Impact Factor</i>
K. Das et al.	Structure, properties and in-vitro response of SiO <sub>2</sub> -Na <sub>2</sub> O-CaO-P <sub>2</sub> O <sub>5</sub> system based glass-ceramics after partial replacement of Na <sub>2</sub> O by Li <sub>2</sub> O	<i>J. Non-Crystal. Solids</i> (2021)	2.6
T.K. Bhattacharya and K. Maity	Calcination characteristics of limestone in relation with the reactivity of quick lime	<i>Sci. Voy.</i> (2020)	---
T.K. Bhattacharya et al.	A novel approach toward microstructure evaluation of sintered ceramic materials through image processing techniques	<i>Int. J. Appl. Cer. Tech.</i> (2021)	1.968

<b>Name of the author</b>	<b>Title of the paper</b>	<b>Name of the journal</b>	<b>Impact Factor</b>
T.K. Bhattacharya et al.	Non-isothermal decomposition kinetics of nano-scale CaCO <sub>3</sub> as a function of particle size variation	<i>Cera. Int.</i> (2021)	3.830
T.K. Bhattacharya et al.	Effect of nano CuO addition on the tribo-mechanical behavior of alumina ceramics in non-conformal contact	<i>Int. J. Appl. Cer. Tech.</i> (2021)	1.968
M. Maitra et al.	A Novel Spatial FCM-Based Method for Brain MRI Image Segmentation in the Presence of Noise and Inhomogeneity	<i>Proc.I3CS-Springer, NEHU</i> (2020)	---
M. Maitra et al.	A novel decision-based adaptive feedback median filter for high density impulse noise suppression	<i>J. Multimed. Tool. Appl.</i> (2021)	2.757
S. Chowdhury et al.	An overview of cybersecurity risks during the COVID-19 pandemic period	<i>Scientific Voyge</i> (2020)	-
S. Chowdhury et al.	A novel approach towards microstructure evaluation of sintered ceramic materials through image processing techniques	<i>Int. J. Appl. Cer. Tech.</i> (2021)	1.968
S. Chowdhury et al.	Digitized data validation using dual color images with improved robustness and error correction facility	Sadhana (2021)	1.88
K.Saha (Roy) and S. Khan	Study of Dynamicity of Call Management and System Resource Management Using Call Admission Control (CAC) Protocol	<i>Adv. Wire. Mob. Commun.</i> (2020)	---
K. Saha (Roy) and R. Hazra	An approach of Searching Mobile User Location with QoS provisioning in 5G Cellular Networks	<i>Int. Conf. Mob. Comput. Sustain. Info.</i> (2020)	---
K. Saha (Roy) and R. Mukhopadhyay	Study of Reinforcement Learning based Call Admission Control (CAC) protocol in Wireless/ Cellular Networks	<i>Int. Conf. Adv. Comput. Techno. Sci. Eng.</i> (2021)	---
K. Saha (Roy) and S. Malakar	Comparative Study of Different Machine Learning Models for Measurement of QoE Based on MOS in Wireless Networks	<i>2<sup>nd</sup> Int. Conf. Adv. Comput. Appl.</i> (2021)	---
Bimal Pal	Residue number system and its application to signal processing for high speed communication	<i>Int. J. of Advanced Research in Engg. and Tech.</i> (2021)	0.1
Bimal Pal et al.	Comparison of Discrete Fourier Transform and Fast Fourier Transform with Reduced Number of Multiplication and Addition Operations	<i>Int. J. of App. Math.and Info.</i> (2021)	0.0

<b><i>Name of the author</i></b>	<b><i>Title of the paper</i></b>	<b><i>Name of the journal</i></b>	<b><i>Impact Factor</i></b>
K. Chatterjee et al.	Probabilistic Neural Network aided fast classification of transmission line faults using differencing of current signal	<i>J. Inst. Engineers: Series B</i> (2020)	0.17
K. Chatterjee et al.	A novel approach toward microstructure evaluation of sintered ceramic materials through image processing techniques	<i>Int. J. Appl. Cer. Tech.</i> (2020)	1.762
K. Chatterjee et al.	Entropy-Aided Assessment of Amla ( <i>Emblica officinalis</i> ) Quality Using Principal Component Analysis	<i>Biointer. Res. Appl. Chem.</i> (2020)	0.22
A. Mukherjee et al.	A Differential Signal-Based Fault Classification Scheme Using PCA for Long Transmission Lines	<i>J. Inst. Engineers: Series B</i> (2021)	0.17
A. Mukherjee et al.	A supervised principal component analysis-based approach of fault localization in transmission lines for single line to ground faults	<i>Electric. Engg.</i> (2021)	0.35
A. Mukherjee et al.	Probabilistic Neural Network aided fast classification of transmission line faults using differencing of current signal	<i>J. Inst. Engineers: Series B</i> (2021)	0.17
A. Mukherjee et al.	Classification and localization of transmission line faults using curve fitting technique with Principal Component Analysis features	<i>Electric. Engg.</i> (2021)	0.35
A. Mukherjee et al.	Transmission Line Fault Classification under High Noise in Signal: A Direct PCA-Threshold-Based Approach	<i>J. Inst. Engineers: Series B</i> (2021)	0.17
A. Mukherjee et al.	Entropy-Aided Assessment of Amla ( <i>Emblica officinalis</i> ) Quality Using Principal Component Analysis	<i>Biointer. Res. Appl. Chem.</i> (2021)	0.22
P. Haldar et al.	A Novel Approach towards Microstructure Evaluation of Sintered Ceramic Materials through Image Processing Techniques	<i>Int. J. Appl. Cer. Tech.</i>	1.762
P. Haldar et al.	Effect of Nano CuO Addition on the Tribo-Mechanical Behavior of Alumina Ceramics in Non-Conformal Contact	<i>Int. J. Appl. Cer. Tech.</i>	1.762
P. Haldar et al.	Pneumonia detection based on X-Ray image classification using Convolutional Neural Network based Deep Learning Model	<i>Sci. Voy.</i>	---
S. Ray et al.	Plane symmetric cosmological Model	<i>Sci. Voy.</i> (2020)	---
S. Ray et al.	Cosmological models with squared trace in modified gravity	<i>Int. J. Mod. Phys. D</i> (2020)	2.154

<b><i>Name of the author</i></b>	<b><i>Title of the paper</i></b>	<b><i>Name of the journal</i></b>	<b><i>Impact Factor</i></b>
S. Ray et al.	Nonsingular solution with anisotropic fluid in mini bang cosmology	<i>Int. J. Mod. Phys. D</i> (2020)	2.154
S. Ray et al.	Cosmological models with variable anisotropic parameter in $f(R;T)$ gravity	<i>Ind. J. Phys.</i> (2020)	1.242
S. Ray et al.	Compact stellar models in modified gravity	<i>Int. J. Mod. Phys. D</i> (2021)	2.154
S. Ray et al.	Charged strange stellar model with Tolman $V$ metric potential in the Einstein-Maxwell space-time	<i>Res. Phys.</i> (2021)	3.280
S. Ray et al.	Noncommutative black hole in the Finslerian spacetime	<i>Class. Quantum Grav.</i> (2021)	3.487
S. Ray et al.	Anisotropic charged strange stars in Krori-Barua spacetime under $f(R,T)$ gravity'	<i>Ann. Phys.</i> (2021)	2.267
S. Ray et al.	Dilaton-axion black hole under the Solar system tests	<i>New Astron.</i> (2021)	1.058
S. Ray et al.	A semi-classical model of regular inflationary cosmology	<i>Phys. Dark Univ.</i> (2021)	5.430
S. Ray et al.	Bouncing universe models in the extended gravity	<i>Chin. J. Phys.</i> (2021)	2.560
S. Ray et al.	Cosmological models with a Hybrid Scale Factor	<i>Int. J. Mod. Phys. D</i> (2021)	2.154
S. Ray et al.	A gederalized form of Raychoudhuri equation	<i>Int. J. Mod. Phys. D</i> (2021)	2.154
S. Ray et al.	Decoupling gravitational sources in $f(R,T)$ gravity under class I spacetime	<i>Phys. Dark Univ.</i> (2021)	5.430
S. Ray et al.	Anisotropic compact stars: Constraining model parameters to account for physical features of tidal Love numbers	<i>Ann. Phys.</i> (2021)	2.267
S. Ray et al.	Role of anisotropy on the tidal deformability of compact stellar objects	<i>Phys. Sci. Forum</i> (2021)	---
S. Ray et al.	Wormhole solutions in $f(R)$ Gravity	<i>Int. J. Mod. Phys. D</i> (2021)	2.154
S. Ray et al.	Anisotropic stars in Brans-Dicke gravity	<i>Chin. J. Phys.</i> (2021)	2.56

<i>Name of the author</i>	<i>Title of the paper</i>	<i>Name of the journal</i>	<i>Impact Factor</i>
S. Ray et al.	Analytic radiation model for perfect fluid under homotopy perturbation method	<i>Ind. J. Phys.</i> (2021)	1.242
S. Ray et al.	Non-isothermal decomposition kinetics of nano-scale CaCO <sub>3</sub> as a function of particle size variation,	<i>Cera. Int.</i> (2021)	3.830
S. Ray et al.	N.R. Sen: Father of Indian Applied Mathematics	<i>Eur. Phys. J. H</i> (2021)	0.780
P. Paul et al.	Modified Chaplygin gas in anisotropic universes on the brane	<i>In. J. Mod. Phys. D</i> (2021)	2.461
N. Mazumder et al.	Resonant energy transfer in a van der Waals stacked MoS <sub>2</sub> –functionalized graphene quantum dot composite with ab initio validation	<i>Nanoscale</i> (2020)	7.790
N. Mazumder et al.	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> as a radio frequency decoupling capacitor: interplay between Maxwell–Wagner polarization and a pseudo inductive response	<i>J. Phys. D: Appl. Phys.</i> (2021)	3.170
N. Mazumder et al.	Experimental observation of valence band dispersion and increased hole conductivity in CuCr <sub>1-x</sub> Li <sub>x</sub> O <sub>2-y</sub> S <sub>y</sub>	<i>Current Appl. Phys.</i> (2021)	2.480
N. Mazumder et al.	Observation of polarization dependent excitonic luminescence in few-layered WS <sub>2</sub> flakes	<i>Chem. Phys. Lett.</i> (2021)	2.030

#### 4. Seminar/workshop attended/papers presented in National/International Conferences:

<i>Name of the faculty</i>	<i>Title of the seminar/ workshop/ Name of the article</i>	<i>Place/ Organized by</i>	<i>Date</i>
Bimal Pal	FDP on Internet of Things Security	MAKAUT, West Bengal	07.11.2020-11.11.2020
Alok Mukherjee	2nd International conference on emerging technologies in data mining and information security, IEMIS 2020 / A Correlation based Classification of power system faults in a long transmission line	IEM, Kolkata	02.07.2020 - 04.07.2020
Alok Mukherjee	2nd International conference on emerging technologies in data mining and information security, IEMIS 2020 / A wavelet entropy based power system fault classification for long transmission lines	IEM, Kolkata	02.07.2020 - 04.07.2020

<b><i>Name of the faculty</i></b>	<b><i>Title of the seminar/ workshop/ Name of the article</i></b>	<b><i>Place/ Organized by</i></b>	<b><i>Date</i></b>
Alok Mukherjee	International Conference on Thermal Engineering and Management Advances, ICTEMA 2020/New Heuristics to Minimise Makespan of Permutation Flowshop Scheduling Problem with Uniformly Distributed Processing Times	JGEC, Jalpaiguri	19.12.2020 - 20.12.2020
Alok Mukherjee	International Conference on Thermal Engineering and Management Advances, ICTEMA 2020/ Intelligent Control of Air Conditioner for Reduced Energy Consumption using Pressure Sensor	JGEC, Jalpaiguri	19.12.2020 - 20.12.2020
Alok Mukherjee	International Conference on Thermal Engineering and Management Advances, ICTEMA 2020 / Random Iterated Greedy Local Search Algorithm for N×M Flow-shop Scheduling, International Conference on Thermal Engineering and Management Advances	JGEC, Jalpaiguri	19.12.2020 - 20.12.2020
Alok Mukherjee	International Conference on Innovations in Energy Management and Renewable Resources (IEMRE 2021) / Maximum power point tracking of photovoltaic system by Perturb & Observe and Incremental Conductance methods under normal and partial shading conditions	IEEE, Kolkata	05.02.2021 - 07.02.2021
Soumit Chowdhury	Future generation Computing and applications	GCECT, Kolkata	08.08.2020- 09.08.2020
Soumit Chowdhury	Short term Course on ``Artificial Intelligence using Python``	GCECT & Brain-O-Vision	14.09.2020- 19.09.2020
Soumit Chowdhury	Short term Course on ``Foundation and Advancements in Cyber Security``	Greater Kolkata College of Engineering & Management	04.05.2021 - 08.05.2021
Partha Halder	Entrepreneurship Development Program on Renewable Energy	MAKAUT, West Bengal	20.09.2020
Partha Halder	Recent Trends in CNC Technology	Ranaghat Government Polytechnic, Nadia	19.09.2020
Partha Halder	Outcome Based Education and Accreditation for Engineering Colleges	G.H. Raison Institute of Engineering & Technology, Nagpur	11.09.2020
Partha Halder	Orientation and Adoption of NISP at HEI Level & Policy Implementation Strategy and Progress Monitoring at HEI level	MoE's Innovation Cell, Government of India	07.08.2020 - 21.08.2020

<i>Name of the faculty</i>	<i>Title of the seminar/ workshop/ Name of the article</i>	<i>Place/ Organized by</i>	<i>Date</i>
Partha Halder	Smart Learning: A New Paradigm	The Institution of Engineers (India) & IE Malaysia	10.08.2020
P. Mukherjee	Advanced Optimization techniques and hands on MATLAB/Scilab	MNIT Jaipur, NIT PATNA and PDPM IIIT DM Jabalpur	13.07.2020-24.07.2020
P. Mukherjee	Artificial Intelligence using Python	GCECT, Brainovision Solutions India Pvt. Ltd. & National Youth Council of India	14.09.2020-19.09.2020
P. Mukherjee	Simulation in Engineering Education and Research	COMSOL Multiphysics	03.03.2021

## 5. Book Chapter Published / Accepted

<i>Name of the author</i>	<i>Title of the Book/Chapter</i>
B.K. Sanfui et al.	Development of Commercial Alumina Based Sol-Gel Derived Multilayer CO <sub>2</sub> Selective Ceramic Membrane, Indo Canadian Research Conclave on Carbon Capture Sequestration and Utilization (ICRC-CCSU), Pt Deendayal Energy University, Gandhinagar, 12-13 March 2021
P. Halder et al.	Simulation and Validation of Castings in Shop Floor, In "Casting Processes and Modelling of Metallic Materials", DOI:10.5772/intechopen.94596, IntechOpen
A. Mukherjee et al.	New Heuristics to Minimise Makespan of Permutation Flowshop Scheduling / In International Conference on Thermal Engineering and Management Advances (pp. 395-404). Springer, Singapore. doi: 10.1007/978-981-16-2347-9_34
A. Mukherjee et al.	A Correlation based Classification of power system faults in a long transmission line / In Emerging Technologies in Data Mining and Information Security: Proceedings of IEMIS 2020, Volume 2, pp. 113-121, Springer Singapore. doi: <a href="https://doi.org/10.1007/978-981-33-4367-2_12">https://doi.org/10.1007/978-981-33-4367-2_12</a> , Online ISBN: 978-981-33-4367-2
A. Mukherjee et al.	A wavelet entropy based power system fault classification for long transmission lines / In Emerging Technologies in Data Mining and Information Security: Proceedings of IEMIS 2020, Volume 2, pp. 123 - 131, Springer Singapore. doi: <a href="https://doi.org/10.1007/978-981-33-4367-2_12">https://doi.org/10.1007/978-981-33-4367-2_12</a> , Online ISBN: 978-981-33-4367-2

<i><b>Name of the author</b></i>	<i><b>Title of the Book/Chapter</b></i>
A. Mukherjee et al.	Maximum power point tracking of photovoltaic system by Perturb & Observe and Incremental Conductance methods under normal and partial shading conditions / In 2021 Innovations in Energy Management and Renewable Resources (52042) (pp. 1-6). IEEE. doi: 10.1109/IEMRE52042.2021.9386964
P. Ghosh	``Deep Learning to Diagnose Diseases and Security in 5G Healthcare Informatics`` been Accepted in MACHINE LEARNING AND DEEP LEARNING TECHNIQUES FOR MEDICAL SCIENCE, CRC Press, Taylor & Francis (2021)
P. Ghosh	"Early Stage Diabetes Risk Prediction using Machine Learning" has been accepted in UGC care listed Journal, "VIGYAN PRAKASH 2021"
P. Ghosh et al.	"A STUDY ON MUSIC GENRE CLASSIFICATION USING MACHINE LEARNING" has been accepted in International Conference on "Mathematical and Computational Models - ICMCM'21" (2021)
Soumit Chowdhury	“A Novel High-Density Multilayered Audio Steganography Technique in Hybrid Domain”, Published in – “Proceedings of International Conference on Frontiers in Computing and Systems” (COMSYS 2020)
Soumit Chowdhury	“Multi Data Driven Validation of E-Document Using Concern Authentic Multi-signature Combinations”, Published in – “Proceedings of International Conference on Frontiers in Computing and Systems” (COMSYS 2020)

## **PART 4: EXTENSION PROGRAMMES**

## **PART 4: EXTENSION PROGRAMMES**

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

<i>Type</i>	<i>Name of the teacher awarded the fellowship</i>	<i>Name of the award</i>	<i>Date of award</i>	<i>Awarding agency</i>
National	Dr. Saibal Ray	Visiting Associateship	01/08/2020 - 31/07/2023	UGC via IUCAA, Pune
International	Dr. Saibal Ray	Fellow of the Royal Astronomical Society	14/05/2021	The Royal Astronomical Society, London

### **2. National Service Scheme (NSS)**

<b>Name of the activity</b>	<b>Dates (dd/mm/yyyy)</b>	<b>Number of student participated</b>	<b>Number of teachers coordinated the programs</b>
Quiz on HIV & AIDS	18.02.2021 & 08.03.2021	38 & 39	2
Celebration of International Women's Day	08.03. 2021	30	2
Celebration of International Yoga Day	21.06. 2021	29	2

### **3. 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>].

### **4. Students' activities**

<b>Name of the activity</b>	<b>Mode</b>	<b>Year</b>	<b>Details of the programme</b>
Independence Day celebration	Offline	15 August 2020	Flag hoisting & cultural programme
Teacher's Day	Online	5 September 2020	
Biswakarma Puja	Offline	17 September 2020	
Saraswati Puja	Offline	29 & 30 January 2021	

Name of the activity	Mode	Year	Details of the programme
Quiz Competition	Online	2021	Intra college event
Debate Competition	Online	2021	Intra college event
Painting & Photography Competition	Online	2021	Intra college event
Senior-Junior Interaction	Online	2021	Inter college event
Webinars from CodeChef <i>GCECT Chapter</i>	Online inter college event	Roadmap to Competitive Coding 2021	
		A walkthrough of Coding Complexity to simplify the journey to FAANG	
		Encode	
Coding Competitions from CodeChef <i>GCECT Chapter</i>	Online inter college event	CodeScam 2021	
		Breaking Code	

**List of teachers undergoing online/ face-to-face Faculty Development Programmes (FDPs)/ Management Development Programmes (MDPs) during the session 2020-21**

<b>Name of the Faculty</b>	<b>Type of Program (Professional Development Programmes, Orientation/Induction Programmes, Refresher Course, Short Term Course )</b>	<b>Durati on (in No. of days)</b>	<b>start Date and end date</b>	<b>Name of the Organising Institution</b>
Prof. Prasenjit Paul	Faculty Induction Programme (Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education)	30 days	01.09.2020 - 30.09.2020	Teaching Learning Centre, Ramanujan College University of Delhi, under the aegis of MINISTRY OF HUMAN RESOURCE DEVELOPMENT PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING
Prof. Prasenjit Paul	FDP on DEVELOPMENT AND IMPLEMENTATION OF MOOCS	7 days	21.10.2020 - 27.10.2020	Teaching Learning Centre, Ramanujan College University of Delhi, under the aegis of MINISTRY OF HUMAN RESOURCE DEVELOPMENT PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING
Prof. Prasenjit Paul	FDP on ADVANCED PEDAGOGICAL TECHNIQUES	8 days	29.10.2020 - 05.11.2020	Teaching Learning Centre, Ramanujan College University of Delhi, under the aegis of MINISTRY OF HUMAN RESOURCE DEVELOPMENT PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING
Prof. Prasenjit Paul	Refresher course on Astrophysics and Astronomy	33 days	10.05.2021 - 11.06.2021	Teaching Learning Centre of IUCAA
Prof. Pinaki Mukherjee	"Advanced Optimization techniques and hands on MATLAB/Scilab"	12 days	13.07.2020 - 24.07.2020	Jointly organized by MNIT Jaipur, NIT PATNA and PDPM IIIT DM Jabalpur
Prof. Partha Ghosh	AICTE-ISTE approved Orientation /Refresher Programme	7 days	25.03.2021 - 31.03.2021	KKR and KSR Institute of Technology and Science, Guntur, Andhra Pradesh

Prof. Partha Ghosh	QIP Short Term Course (online) on "Data Analytics"	6 days	01.03.2021 - 06.03.2021	Conducted by the Department of Industrial and Management Engineering, IIT Kanpur
Prof. Partha Ghosh	10-days short-term course on "Advancements in Signal Processing and Artificial Intelligence in Healthcare (ASPAIH)"	10 days	15.02.2021 - 24.02.2021	INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN AND MANUFACTURING, KANCHEEPURAM DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Prof. Partha Ghosh	AICTE - QIP Sponsored Two Weeks Online Faculty Development Programme on "Computer Vision & Image Processing: Research Issues, Innovation and Application"	14 days	10.02.2021 - 23.02.2021	PSNA College of Engineering and Technology
Prof. Partha Ghosh	AICTE Training And Learning (ATAL) Academy Online FDP on "Artificial Intelligence"	5 days	01.02.2021 - 05.02.2021	Ramakrishna Mission Vivekananda Educational and Research Institute under AICTE Training And Learning (ATAL) Academy
Prof. Partha Ghosh	AICTE Training And Learning (ATAL) Academy Online FDP on "Machine Learning (Computer Science and Engineering)"	5 days	18.01.2021 - 22.01.2021	INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DHARWAD under AICTE Training And Learning (ATAL) Academy
Prof. Partha Ghosh	AICTE Training And Learning (ATAL) Academy Online FDP on "Big Data Analytics with Deep Learning"	5 days	18.08.2020 - 22.08.2020	Poornima Institute of Engineering & Technology under AICTE Training And Learning (ATAL) Academy
Prof. Paramita Dey	Data analysis using MATLAB (NITTR Kolkata)	5 days	25.01.2021 - 29.01.2021	NITTTR, Kolkata
Prof. Paramita Dey	Applications of MATLAB in Control System, Image Processing, Fuzzy Logic and GUI(NITTR Kolkata)	5 days	18.01.2021 - 22.01.2021	NITTTR, Kolkata
Prof. Nilesh Mazumder	Use of LATEX in typesetting technical documents	5 days	31.08.2020 - 04.09.2020	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar
Prof. Nilesh Mazumder	UGC-Sponsored Online Faculty Induction Programme	28 days	08.09.2020 - 05.10.2020	Guru Nanak Dev University, Amritsar under UGC, HRDC
Prof. Nilesh Mazumder	Online Refresher Course on "Materials Physics and Materials Science"	15 days	07.12.2020 - 21.12.2020	UGC-HUMAN RESOURCE DEVELOPMENT CENTRE JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
Prof. Kalpana Saha (Roy)	FDP on Data Science (ATAL)	5 days	07.01.2021 - 11.01.2021	Cochin University of Science and Technology under AICTE Training And Learning (ATAL) Academy

Prof. Kalpana Saha (Roy)	FDP on Artificial Intelligence, Machine Learning and Deep Learning (ATAL)	5 days	02.02.2021 - 06.02.2021	Karpagam College of Engineering under AICTE Training And Learning (ATAL) Academy
Prof. Kalpana Saha (Roy)	FDP on Artificial Intelligence (ATAL)	5 days	08.02.2021 - 12.02.2021	Manipal University Jaipur under AICTE Training And Learning (ATAL) Academy
Prof. Bimal Pal	Faculty Development Program on Internet of Things Security	5 days	07.11.2020 - 11.11.2020	Organized by MAKAUT, WB; IUST, Jammu & Kashmir and GCECT, Kolkata; Sponsored by TEQIP III
Prof. Bimal Pal	Faculty Development Program (Introduction to Research, NPTEL)	54 days	14.09.2020 - 06.11.2020	NPTEL
Prof. Bimal Pal	Faculty Development Program (Fundamentals Of Electronic Materials and Devices, NPTEL)	54 days	18.01.2021 - 12.03.2021	NPTEL
Prof. Atanu Kumar Paul	ARTIFICIAL INTELLIGENCE USING PYTHON	6 days	14.09.2020 - 19.09.2020	Government College of Engineering And Ceramic Technology, BrainOVision, National Youth Council of India
Prof. Barun Kumar Sanfui	Orientation/Refresher Programme on Innovative Teaching-Learning Methods	7 days	22.04.2021 - 28.04.2021	Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology, Baramati, Pune, Maharashtra
Prof. Barun Kumar Sanfui	Orientation/Refresher Programme on Recent Challenges in Teaching Pedagogy	7 days	21.05.2021 - 27.05.2021	Chouksey Engineering College, Bilaspur, Chhattisgarh
Prof. Barun Kumar Sanfui	FDP on Recent developments in sustainable processes	5 days	31.05.2021 - 04.06.2021	INDIAN INSTITUTE OF CARPET TECHNOLOGY under AICTE Training And Learning (ATAL) Academy
Prof. Barun Kumar Sanfui	FDP on patent drafting and filling	5 days	14.06.2021 - 18.06.2021	Jerusalem College of Engineering, Chennai under AICTE Training And Learning (ATAL) Academy
Prof. Bishwarup Das	faculty development program on AI- Using python	6 days	14.09.2020 - 19.09.2020	Government College of Engineering And Ceramic Technology, BrainOVision, National Youth Council of India
Prof. Bishwarup Das	Short Term Course on Aldous Huxley's Perennial Philosophy: Spirituality as Unity	1 day	04.05.2021 - 04.05.2021	Osmania University Centre of International Programmes
Prof. Bishwarup Das	Faculty Development Program on Blockchain - View from Industry	1 day	24.02.2022 - 24.02.2022	TCS
Prof. Soumit Chowdhury	short term Course on "Artificial Intelligence using Python", conducted by Govt. College of Engineering & Ceramic Technology,	6 days	14.09.2020 - 19.09.2020	Government College of Engineering And Ceramic Technology, BrainOVision, National Youth Council of India

	Kolkata in collaboration with Brain-o-vision			
Prof. Soumit Chowdhury	Short Term Course on "Foundation and Advancements in Cyber Security", conducted by GREATER KOLKATA COLLEGE OF ENGINEERING & MANAGEMENT	5 days	04.05.2021 - 08.05.2021	GREATER KOLKATA COLLEGE OF ENGINEERING & MANAGEMENT
Prof. Alok Mukherjee	Faculty Development Program on Artificial Intelligence using Python, conducted by Govt. College of Engineering & Ceramic Technology, Kolkata in collaboration with Brainovision Solutions India Pvt.Ltd.	6 days	14.09.2020 - 19.09.2020	Government College of Engineering And Ceramic Technology, BrainOVision, National Youth Council of India
Prof. Kingshuk Chatterjee	Faculty Development Program on Artificial Intelligence using Python, conducted by Govt. College of Engineering & Ceramic Technology, Kolkata in collaboration with Brainovision Solutions India Pvt.Ltd.	6 days	14.09.2020 - 19.09.2020	Government College of Engineering And Ceramic Technology, BrainOVision, National Youth Council of India
Prof. Partha Haldar	short term Course on "Artificial Intelligence using Python", conducted by Govt. College of Engineering & Ceramic Technology, Kolkata in collaboration with Brain-o-vision	6 days	14.09.2020 - 19.09.2020	Government College of Engineering And Ceramic Technology, BrainOVision, National Youth Council of India
Prof. Partha Haldar	"Smart Learning: A New Paradigm" organized by The Institution of Engineers (India) in collaboration with IE Malaysia	1 day	10.08.2020 - 10.08.2020	The Institution of Engineers (India) in collaboration with IE Malaysia
Prof. Partha Haldar	"Orientation and Adoption of NISP at HEI Level & Policy Implementation Strategy and Progress Monitoring at HEI level" organized by MoE's Innovation Cell, Government of India	1 day	07.08.2020 - 07.08.2020	MoE's Innovation Cell, Government of India
Prof. Partha Haldar	"Orientation and Adoption of NISP at HEI Level & Policy Implementation Strategy and Progress Monitoring at HEI level"	1 day	21.08.2020 - 21.08.2020	MoE's Innovation Cell, Government of India

	organized by MoE's Innovation Cell, Government of India			
Prof. Partha Halder	National Level One Day Awareness Workshop on “Outcome Based Education and Accreditation“ for Engineering Colleges organized by G H Rasoni Institute of Engineering & Technology, Nagpur	1 day	11.09.2020 - 11.09.2020	G H Rasoni Institute of Engineering & Technology, Nagpur
Prof. Partha Halder	“ Entrepreneurship Development Program on Renewable Energy” organized by Maulana Abul Kalam Azad University of Technology, West Bengal	1 day	20.09.2020 - 20.09.2020	Maulana Abul Kalam Azad University of Technology, West Bengal
Prof. Mausumi Maitra	FDP on :Quantum Computing" (ATAL)	5 days	05.10.2020 - 09.10.2020	Centre for Development of Advanced Computing (C-DAC) under AICTE Training And Learning (ATAL) Academy
Prof. Ritwik Mondal	Short Term Training Programme (STTP) on "CYBERSECURITY" conducted by Maulana Abul Kalam Azad University of Technology, Kolkata	6 days	14.06.2021 - 19.06.2021	Maulana Abul Kalam Azad University of Technology, West Bengal
Prof. Ritwik Mondal	FDP on Python Programming	5 days	20.07.2020 - 24.07.2020	Jorhat Institute of Science and Technology Jorhat, Assam, Under TEQIP-3, sponsored by MHRD, Govt. Of India

