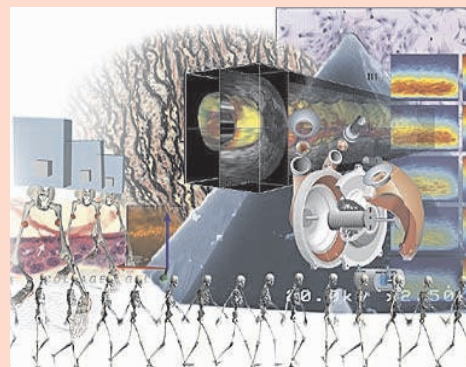




BIOMED NEWS 2023-2024

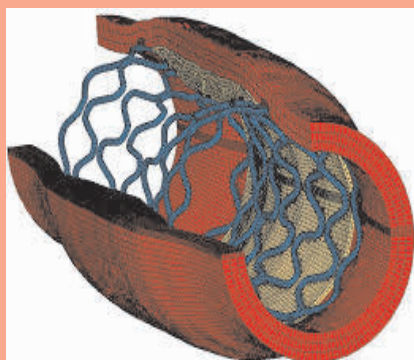


Volume-I
JULY TO DECEMBER -2023



Biomedical Engineering

JIS COLLEGE OF ENGINEERING, KALYANI
(AN AUTONOMOUS INSTITUTE)



EDITORS:
DR. KARABI GANGULY
MS. SUMANA BANERJEE
STUDENT COORDINATOR:
DIPTAYAN MUKHERJEE



Vision:

To foster excellence in Biomedical Engineering Education and Research at both undergraduate and postgraduate levels, by producing globally competitive professionals to serve the mankind and society.

Mission:

DM1: To provide graduates with the knowledge and abilities needed for their professional development in biomedical engineering.

DM2: To create a learning environment that promotes excellence, equipping future professionals with the skills and expertise necessary to thrive in the rapidly evolving landscape of medical technology.

DM3: To instill in Biomedical Engineering graduates a sense of professionalism, ethics, values, and a drive for innovation, responsibility, commitment, and leadership.

Programme Educational Objectives (PEOs):

PEO1: Graduates shall pursue advanced studies and have successful careers in diverse fields in Biomedical Engineering.

PEO2: Graduates will be able to recognize, evaluate, and resolve issues by innovative concept and up-to-date information to satisfy societal expectations.

PEO3: Graduates shall excel themselves in field of teaching, research and development with their in-depth knowledge and innovative minds.

PEO4: Graduates will be able to apply practical knowledge and skill for successful entrepreneurship.

PEO5: Graduates shall work as part of teams on interdisciplinary projects with the multifaceted aspects of using modern tools

Program Specific Outcomes (PSOs):

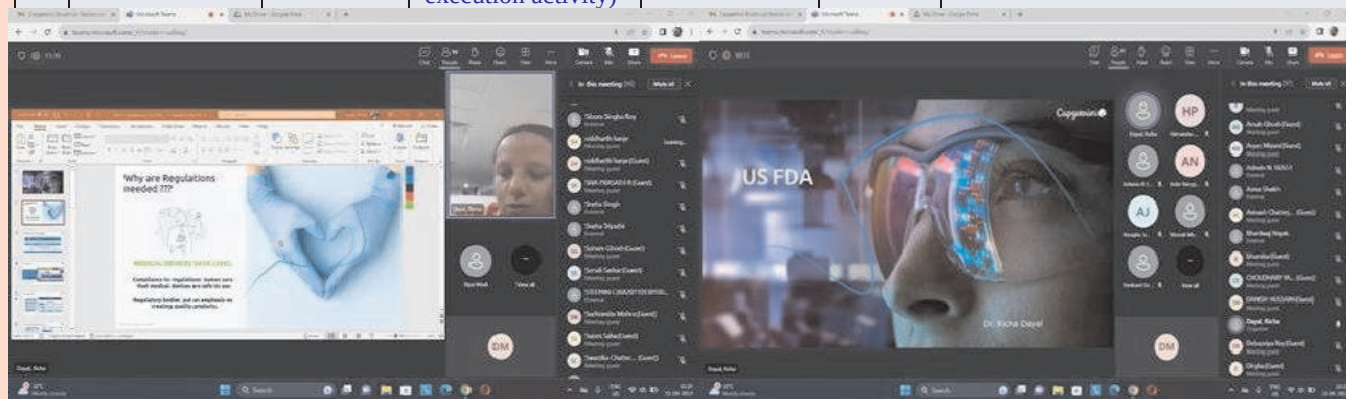
PSO1: Graduates will be able to design and develop indigenous medical devices that addresses the present societal healthcare problems by applying the concepts of Medical science, Engineering and Technology.

PSO2: Graduates shall use software expertise and information and communication technology (ICT) to innovate and resolve problems in the medical field.

PSO3: Graduates will be equipped with the skills and knowledge necessary to conduct research, use innovative medical technologies in a multidisciplinary setting with professionalism and ethics.

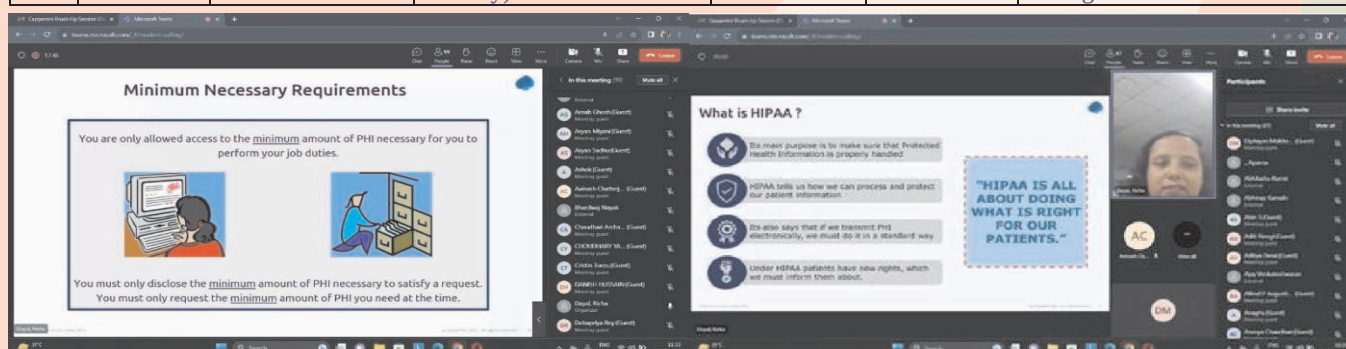
INDUSTRY CONNECT WEBINAR ON RECENT TRENDS IN MEDICAL DEVICES

Sl. No.	Name of Visitor / Guest Speaker	Designation/ Occupation	Seminar/ Workshop/ Conference Topic	Total Participant	Date	Outcome
1	Dr. Richa Dayal	Subject Expert SPOC-Medical & Healthcare Solutoin-Capgemini	Webinar : Capgemini Session DAY -1 on Regulation and Standards in Medical Device Orientation Program(as a part of the MOU execution activity)	26 (B. Tech. BME 4th Year)	11.08.2023	Capgemini Brush-Up Session on Regulations and Standards in Medical Devices (as a part of the MOU execution activity) to provide exposure on Clinical Engineering and Management



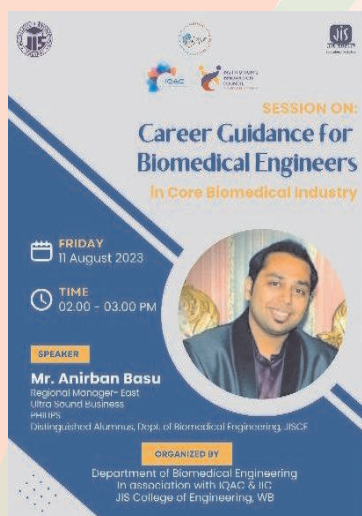
INDUSTRYCONNECTWEBINARONREGULATION AND STANDARDS IN MEDICAL DEVICE

Sl. No.	Name of Visitor / Guest Speaker	Designation/ Occupation	Seminar/ Workshop/ Conference Topic	Total Participant	Date	Outcome
2	Dr. Richa Dayal	Subject Expert SPOC-Medical & Healthcare Solutoin-Capgemini	Webinar : Capgemini Session DAY -2 on Regulation and Standards in Medical Device Orientation Program(as a part of the MOU execution activity)	26 (B. Tech. BME 4th Year)	18.08.2023	Capgemini Brush-Up Session on Regulations and Standards in Medical Devices (as a part of the MOU execution activity) to provide exposure on Clinical Engineering and management
3.	Dr. Richa Dayal	Subject Expert SPOC-Medical & Healthcare Solutoin-Capgemini	Webinar : Capgemini Session DAY -3 on Regulation and Standards in Medical Device Orientation Program(as a part of the MOU execution activity)	26 (B. Tech. BME 4 th Year)	25.08.2023	Capgemini Brush-Up Session on Regulations and Standards in Medical Devices (as a part of the MOU execution activity) to provide exposure on Clinical Engineering and management



ONE-DAY INDUSTRY CONNECT & CARRIER GUIDANCE SESSION ON ENTREPRENEURSHIP IN BIOMEDICAL ENGINEERING

Sl No.	Name of Visitor / Guest Speaker	Designation/ Occupation	Seminar/ Workshop/ Conference Topic	Total Participant	Date	Outcome
01	PHILIPS Mr. Anirban Basu	Regional Manager- East, Ultrasound Business, Philips	Seminar on Medical device Design and Development,	45	11.08.2023	Imparting Exposure on Medical Device Design and Development, Clinical Engineering, Biomedical research, Business Development and Management



ONE-DAY INDUSTRY CONNECT & SEMINER ON MICROWAVE SENSING AND IMAGING: A new ERA in physiological monitoring

Sl No.	Name of Visitor / Guest Speaker	Designation/ Occupation	Seminar/ Workshop/ Conference Topic	Total Participant	Date	Outcome
01	DR.ANWESHA KHASNOBI SH,	Scientist,TCS Research	Seminar on Microwave sensing and Imaging: A new ERA in physiological monitoring	57	10.10.2023	Imparting Exposure on Microwave sensing and Imaging technique in the field of Clinical Engineering, Biomedical research and physiological monitoring .



B. TECH BME STUDENTS IN SMART INDIA HACKATHON ON PROJECT PROTOTYPE



BME Students presenting the project works in front of judges and they winning the respective award (1st Prize) in the category of "Best innovative project" out of best selected institutional projects.



Essay and Debate competition

PROJECT EXHIBITION



Tribute to Rabindranath Tagore
in his Death Anniversary



TEACHERS DAY CELEBRATION



FRESHERS PARTY FOR BME 1ST YEAR BATCH

SESSION ON:
Career Guidance for Biomedical Engineers
in Core Biomedical Industry

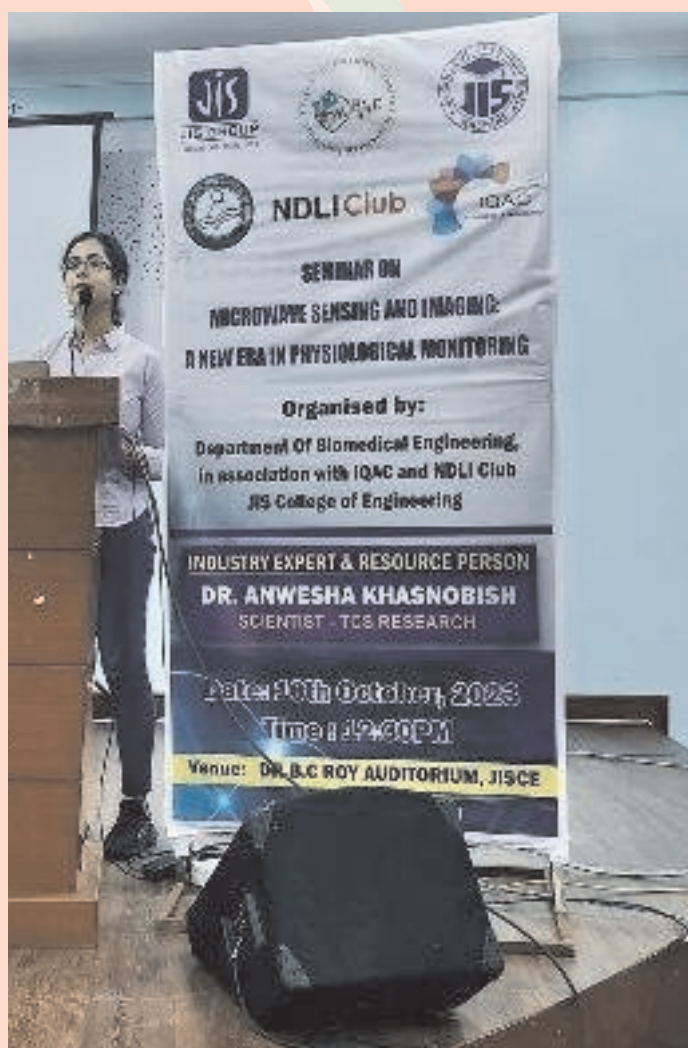
FRIDAY
11 August 2023

TIME
02.00 - 03.00 PM

SPEAKER

Mr. Anirban Basu
Regional Manager- East
Ultra Sound Business
PHILIPS
Distinguished Alumnus, Dept. of Biomedical Engineering, JISCE

ORGANIZED BY
Department of Biomedical Engineering
In association with IQAC & IIC
JIS College of Engineering, WB



BME-ALUMNI CONNECT
MR. ANIRBAN BASU (PRESTIGIOUS
ALUMNUS, BME-JISCE) TAKING
SESSION ON CAREER GUIDANCE FOR
B. TECH BME STUDENTS

BME-ALUMNI CONNECT
DR. ANWESHA KHASNOBISH (PRESTIGIOUS
ALUMNUS, BME-JISCE) TAKING SESSION
ON ENTREPRENEURSHIP FOR
B. TECH BME STUDENTS

Achievement in JISTECH 2K23



The Department of Biomedical Engineering of JIS College of Engineering exhibited highly innovative health care system related engineering models in JISTECH2K23.

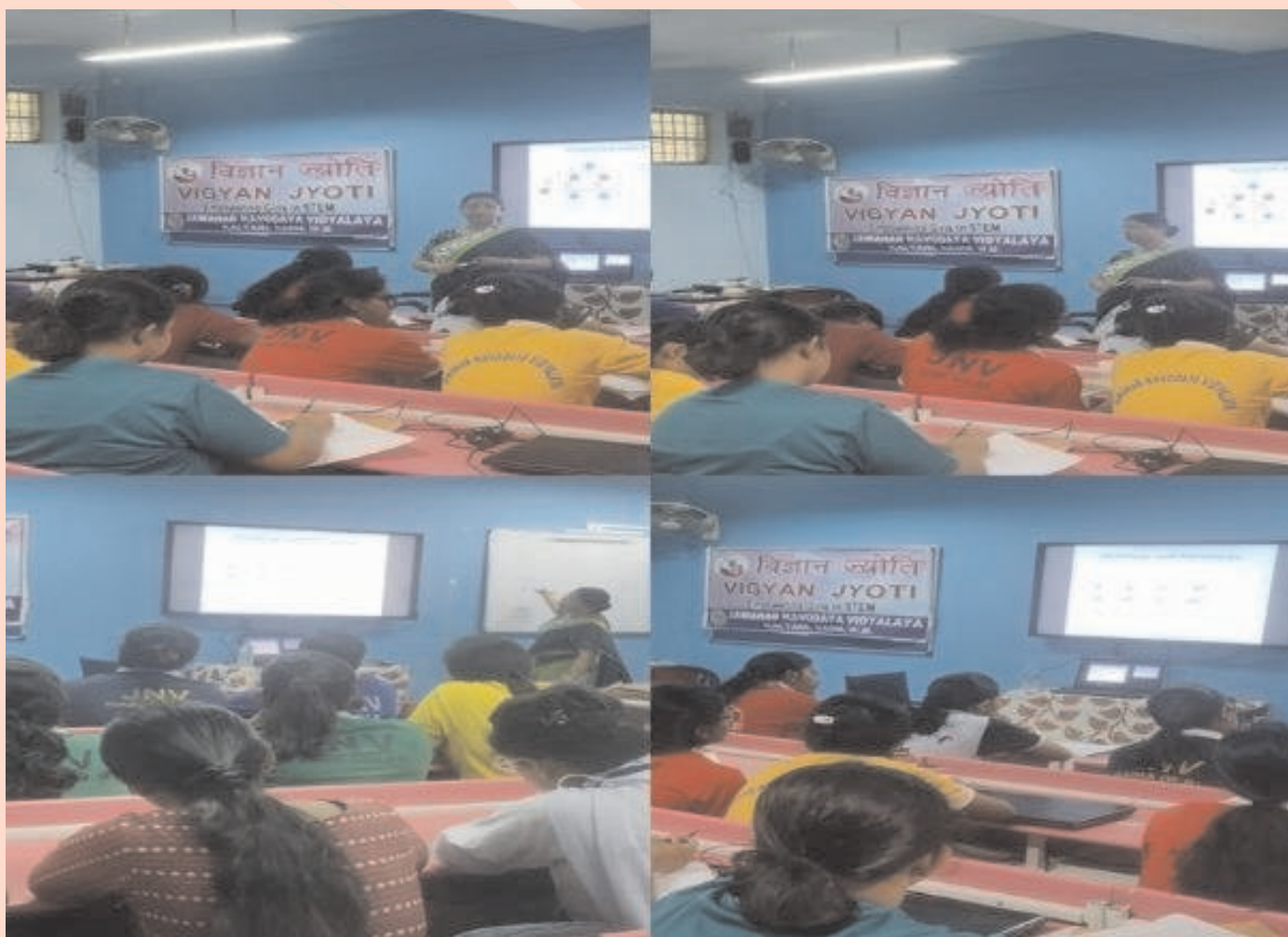
Achievement in INNOVATION EXHIBITION

PROJECT INNOVATION EXHIBITION -1ST PRIZE IN THE CATEGORY “BEST INNOVATIVE PROJECT” OUT OF BEST INSTITUTIONAL PROJECTS



Faculty Achievement

- **Dr. Karabi Ganguly-** Invited as Resource Person at CN Calcutta News Live Panel Discussion on JISCE Campus: Scope of Biomedical Engineering & Mechanical Engineering on 14.07.2023.
- **Dr. Karabi Ganguly-** Delivered Invited talk at JNV KALYANI VIGYAN JYOTI Project under DST.GOV.T. of India on Unravelling the Genetic Tapestry: Exploring Human Heredity' held on 26.07.2023.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee, Dr. Dibyendu Mandal, Ms.Sayanti Guha-** Successfully completed 5Days FDP on Mathematical Modelling from 10.07.2023-14.07.2023.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee, Dr. Dibyendu Mandal-** Successfully completed 5Days FDP on Road MAP to Excellence held on 31.07.2023.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee, Dr. Dibyendu Mandal-** Successfully completed NDLI club training program on Discover your Research potential with IEEE Explore on 01.08.2023.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee, Dr. Dibyendu Mandal-** Successfully completed Administrative Training Program on use of Institutional LMS on 04.08.2023.
- **Dr. Karabi Ganguly-** Delivered Expert Talk on 'Teaching Learning Practice at JISCE' in 1ST YEAR INDUCTION PROGRAM 2023 at JISCE on 07.09.2023.
- **Dr. Karabi Ganguly-** PROGRAM HOST and coordinator of AMRIT-KAL VIMARASH VIKASIT BHARAT @2047 AICTE & Ministry of Education on 20.09.2023.
- **Dr. Karabi Ganguly-** Invited as a Judge at JISCE on Engineers Day Celebration: 'Innovation and Creativity' on 15.09.2023.
- **Dr. Karabi Ganguly-** Invited as Resource Person and Speaker in Regional Science Congress-2023 organized by Regional Navodaya Vidyalaya Samiti on 20.09.2023.
- **Sumana Banerjee-** Successfully completed Faculty Orientation Program on 19.9.2023 at JISCE.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee, Dr. Dibyendu Mandal-** Successfully completed Seminar on 'Advancing Consultancy Activities at JISCE' on 27.09.2023.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee, Dr. Dibyendu Mandal-** Invited as a Judge for Smart India Hackathon at JISCE Intra College Phase held on 25th & 26th September 2023.**Dr. Karabi Ganguly-** Invited as Judge in 31st Cluster Level NCSC-2023, Govt. of India on 17.09.2023.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee-** Successfully completed Seminar on 'Developing a active consulting planning at JIS GROUP –a source of knowledge and opportunities for students faculties' on 13.10.2023.
- **Dr. Dibyendu Mandal-** Successfully completed AICTE/UGC-Based Credit Framework (LOCF) Examination reforms workshop during 9.10.2023 to 13.10.2023.
- **Dr. Karabi Ganguly, Sumana Banerjee-** Successfully conducted Seminar on Microwave sensing and Imaging: A new ERA in physiological monitoring on 10.10.2023.
- **Dr. Sandip Bag-** Invited as Judge in Shyampur siddheswari Mahabiddyalaya science project exhibition anneshawn@ssm 2023 on 10.10.2023.
- **Dr. Sandip Bag, Sumana Banerjee-** Participated in live event of Banglar Uchchashiksha, Government of west Bengal on 04.11.2023.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee-** Departmental project coordinator with External judge for JIS Tech2k23 on 20.11.23 & 26.11.2023.

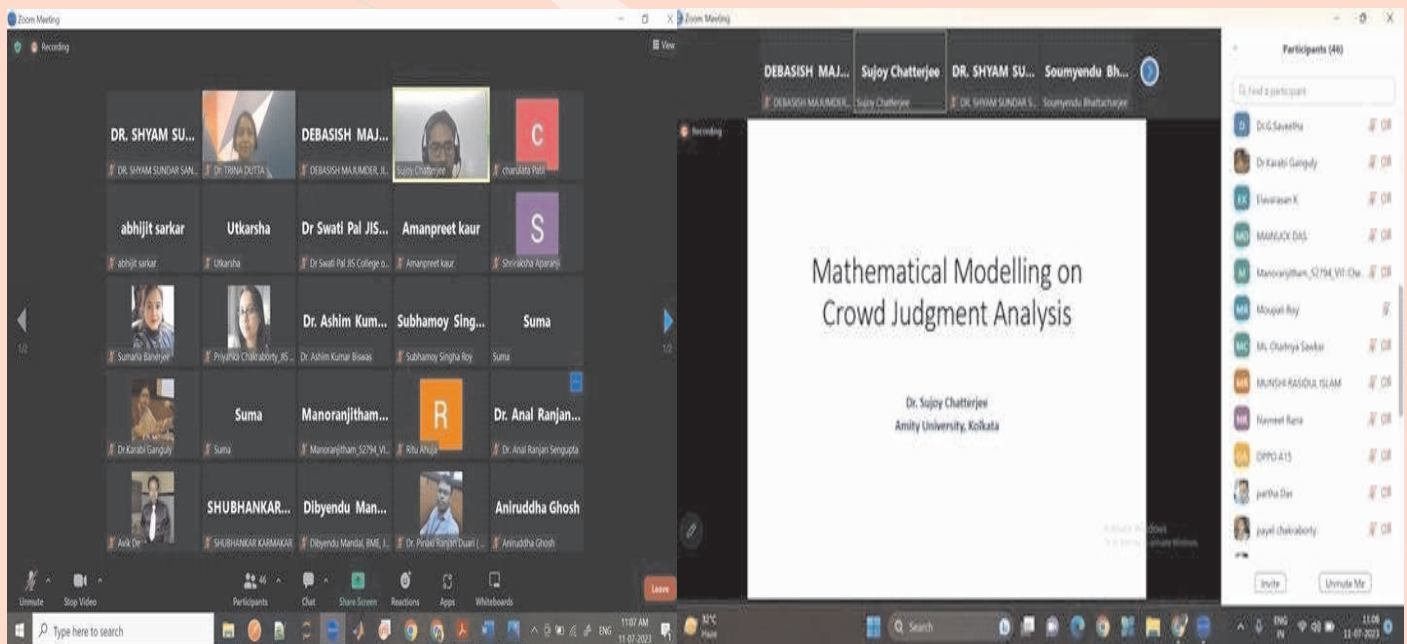


Invited talk at JNV KALYANI VIGYAN JYOTI PROJECT under DST.GOV.T. of India on 'Unraveling the Genetic Tapestry: Exploring Human Heredity'



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Department of Biomedical Engineering, JISCE



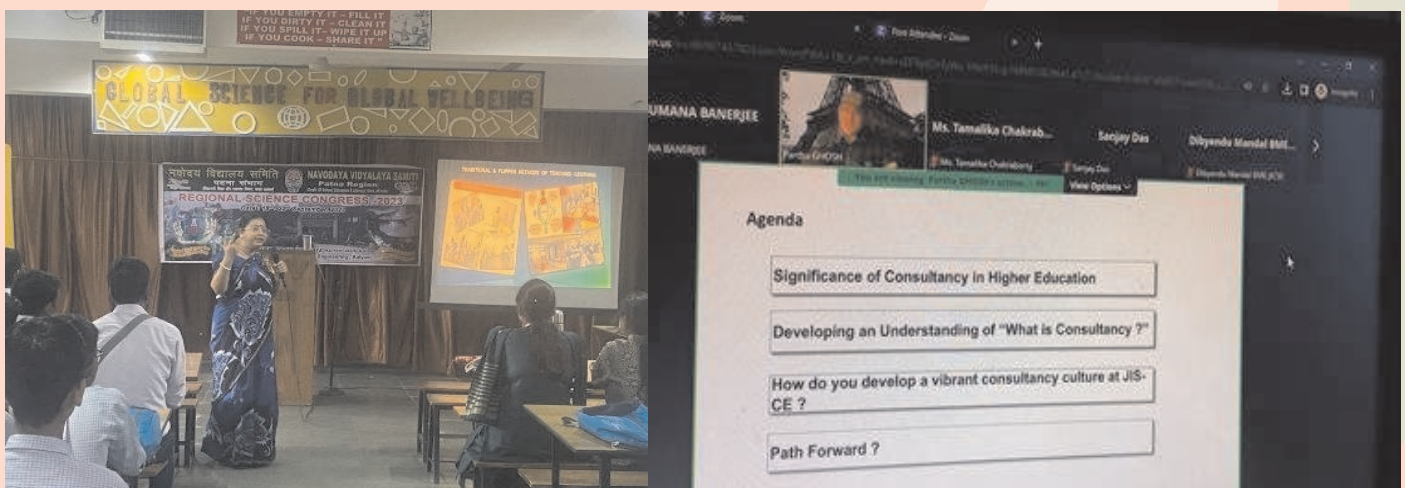
One day FDP On Road MAP to Excellence

5Days FDP on Mathematical Modelling



PROGRAM HOST and coordinator of AMRIT-KAL VIMARASH VIKASIT BHARAT @2047 AICTE& Ministry of Education

Invited as a Judge at JISCE on Engineers Day Celebration : 'Innovation and Creativity'



Invited as Resource Person and Speaker in Regional Science Congress-2023 organized by Regional Navodaya Vidyalaya Samiti

Seminar on 'Advancing Consultancy Activities at JISCE'

Department of Biomedical Engineering, JISCE



Invited as a Judge for Smart India Hackathon at JISCE Intra College Phase



Invited as Judge in 31st Cluster Level NCSC- 2023, Govt. of India



Conducted Seminar on Microwave sensing and Imaging: A new ERA in physiological monitoring



Invited as Judge in Shyampur siddheswari Mahabiddyalaya science project exhibition anneshawn@ssm 2023



AICTE/UGC-Based credit Framework (LOCF) Examination reforms workshop

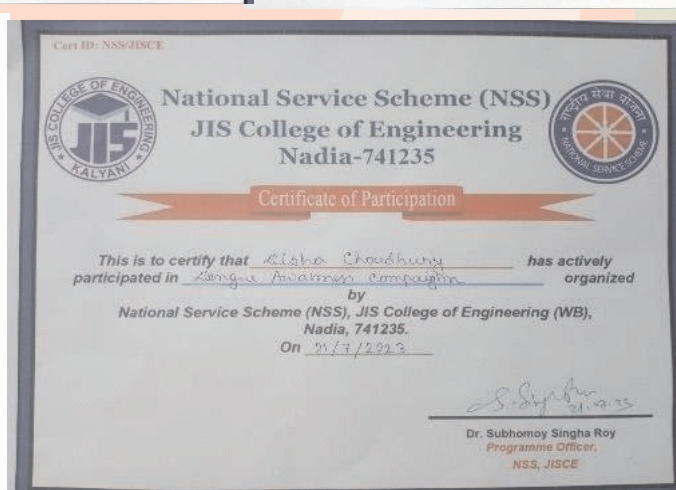
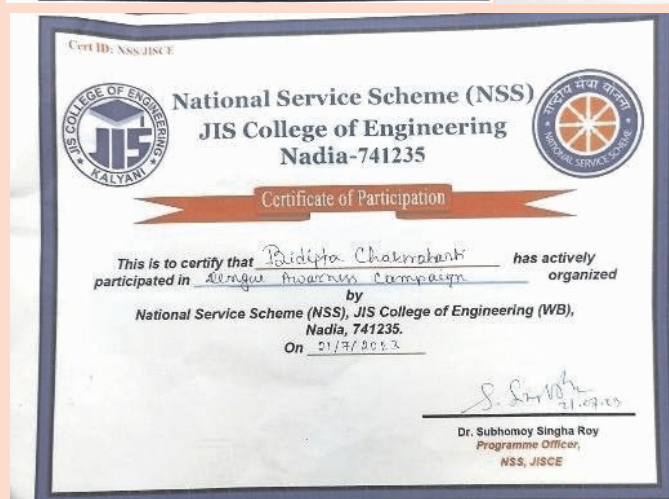
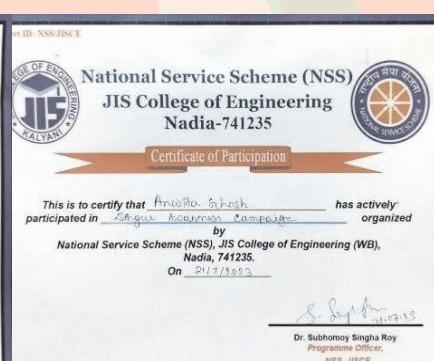
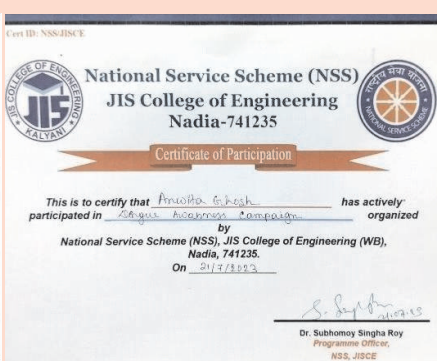
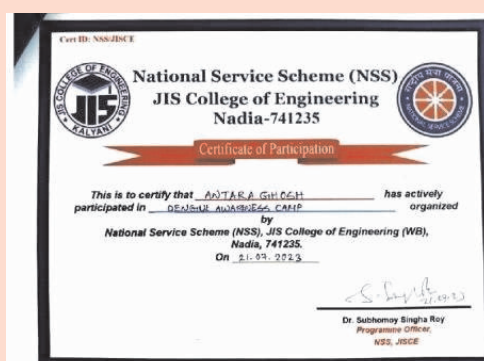


Departmental project coordinator with External judge for JIS Tech2k23

Sl.	Student Name	Year	Achievement	Venue/Organizer/ Certifying Body	Date
20	DIPTAYAN MUKHERJEE, PRODY UT KARMAKAR, DWAIPAY AN ROY, SONALI SARKAR, SWASTIKA MUKHERJEE	2023	Awarded for best Departmental project & get 1 ST PRIZE in JISTECK2K23 at JISCE.	JISCE	24.11.2023- 25.11.2023
21	AGNIV DASGUPTA SK.RASHEL ANKAN SHIT SHREYA NANDY SNEHA DAS	2023	Awarded for best Departmental 2 ND project & get 2 ND PRIZE in JISTECK2K23 at JISCE.	JISCE	24.11.2023- 25.11.2023
22	MONOJ HALDER NIKITA SAHA SOHANA PARVIN MEHUL PODDER	2023	Awarded for best Departmental project & get 3 RD PRIZE in JISTECK2K23 at JISCE.	JISCE	24.11.2023- 25.11.2023
23	BME 1 st year students	2023	Awarded for best wall magazine & get 2 nd PRIZE in JISTECK2K23 at JISCE.	JISCE	24.11.2023- 25.11.2023
24	BME 2 nd year students	2023	Awarded for best ART Designing & get 1 ST PRIZE in JISTECK2K23 at JISCE.	JISCE	24.11.2023- 25.11.2023
25	BME 3 rd year student	2023	Awarded for best photography & get 2 nd PRIZE in JISTECK2K23 at JISCE.	JISCE	24.11.2023- 25.11.2023
26	BME 3 rd year student	2023	Awarded for best painting Designing & get 1 ST PRIZE in JISTECK2K23 at JISCE.	JISCE	24.11.2023- 25.11.2023

Department of Biomedical Engineering, JISCE

Name of the Dept.	Name of the Student(s) & Semester	Achievement	YEAR	CERTIFYING BODY	DATE
BME	Antara Ghosh	ACTIVELY PARTICIPATED IN DENGU AWARENESS CAMP AND ACHIVED CERTIFICATE.	2 ND YEAR	JIS GROUP & NSS	21.07.2023
BME	DISHA CHAKRABORTY	ACTIVELY PARTICIPATED IN DENGU AWARENESS CAMP AND ACHIVED CERTIFICATE.	2 ND	JIS GROUP & NSS	21.07.2023
BME	ANWITA GHOSH	ACTIVELY PARTICIPATED IN DENGU AWARENESS CAMP AND ACHIVED CERTIFICATE.	2 ND	JIS GROUP & NSS	21.07.2023
BME	DISHA BHANDARI	ACTIVELY PARTICIPATED IN DENGU AWARENESS CAMP AND ACHIVED CERTIFICATE.	2 ND	JIS GROUP & NSS	21.07.2023
BME	Bidipta Chakraborty	ACTIVELY PARTICIPATED IN DENGU AWARENESS CAMP AND ACHIVED CERTIFICATE.	2 ND	JIS GROUP & NSS	21.07.2023

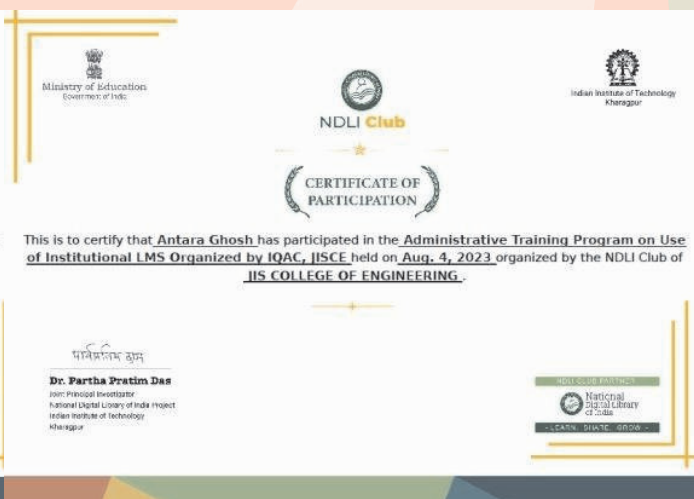


Department of Biomedical Engineering, JISCE

Name of the Dept.	Name of the Student(s) & Semester	Achievement	YEAR	CERTIFYING BODY	DATE
BME	Antara Ghosh	successfully completed COURSERA COUSE	2 ND YEAR	JIS Group & COURSERA	21.07.2023
BME	Antara Ghosh	Participation in Environment and lifestyle Quiz	2 ND YEAR	Ministry of Environment, Forest and climate change Govt. of India.	20.07.2023



Dept.	Students Name	Year	Achievement	Certifying Body	Date
BME	ANTARA GHOSH.ANWITA GHOSH	2023	ACTIVELY PARTICIPATED IN Training Program on Discover Your Research Potential with IEEE XPLORE	JIS COLLEGE OF ENGINEERING	2.08.2023



Department of Biomedical Engineering, JISCE

Name of the Student(s) & Semester	Name of the faculty coordinator (if any)	Type of Publication (Journal/Conference/ Abstract/ Proceedings/ Books /etc)	National/ International	Date of publication	ISSN / ISBN No.	Whether peer reviewed, impact factor, if any
Utsab Ray	K Ganguly,	Journal Paper (International Journal of Innovative Research in Technology)	International	02 July 2023	2349-6002	Peer Reviewed
Utsab Ray	K Ganguly	Journal Paper (International Journal of Innovative Research in Technology)	International	05 July 2023	2349-5138	Peer Reviewed

Faculty involvement in Conference/Seminar/Workshop organized at JISCE, Kalyani

- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee, Dr. Dibyendu Mandal-** Successfully completed 5Days FDP on Mathematical Modelling from 10.07.2023-14.07.2023.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee, Dr. Dibyendu Mandal-** Successfully completed 5Days FDP on Road MAP to Excellence held on 31.07.2023.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee, Dr. Dibyendu Mandal-** Successfully completed NDLI club training program on Discover your Research potential with IEEE Explore on 01.08.2023.
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- **Dr. Karabi Ganguly-** Delivered Expert Talk on 'Teaching Learning Practice at JISCE' in 1ST YEAR INDUCTION PROGRAM 2023 at JISCE on 07.09.2023.
- **Dr. Karabi Ganguly-** PROGRAM HOST and coordinator of Amrit-Kal Vimarash Vikasit Bharat @2047 AICTE & Ministry of Education on 20.09.2023.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee, Dr. Dibyendu Mandal-** Successfully completed Seminar on 'Advancing Consultancy Activities at JISCE' on 27.09.2023.
- **Dr. Karabi Ganguly, Dr. Sandip Bag, Sumana Banerjee-** Successfully completed Seminar on 'Developing a active consulting planning at JIS GROUP –a source of knowledge and opportunities for students faculties' on 13.10.2023.
- **Dr. Dibyendu Mandal-** Successfully completed AICTE/UGC-Based Credit Framework (LOCF) Examination reforms workshop during 9.10.2023 to 13.10.2023.
- **Dr. Karabi Ganguly, Sumana Banerjee-** Successfully conducted Seminar on Microwave sensing and Imaging: A new ERA in physiological monitoring on 10.10.2023.

Publications by Faculty Members: Book Chapters:

SL NO.	Name of the faculty	Journal	Indexed in Scopus/Thompsons & Reuters	Link of the journal in Scopus/Thompsons & Reuters index
1.	S Bag, D. Mandal	Paper Title: Biomechanical Measurement of Muscle Force on Various Degree of Flexion at Elbow Joint	UGC Care	https://www.jetir.org/papers/JETIR2303176.pdf
2.	S Sikdar, K Ganguly	Paper Title: Tracing out the Discomfort & Dissymmetry in The Lower Extremity Considering the Aspect of Foot Pressure	UGC Care	https://www.jetir.org/papers/JETIR2303344.pdf
3	D Mandal, S Bag, S Sikdar	Paper Title: Arduino based wireless tracking of Sleep Apnea through monitoring of Health parameters	UGC Care	https://www.irjet.net/archives/V10/i3/IRJET- V10I3104.pdf
4.	D. Mandal	Development of Silica Collagen Hybrid as Corneal substitute through Sol-Gel route.	Scopus	https://link.springer.com/article/10.1007/s12668-023-01146-6
5.	K Ganguly	PREDICTION OF HONE CALORIE EXPENDITURE USING ADVANCED ML	UGC care	https://jetir.org/index.php?vol=11&issue=6&pubmonth

Department of Biomedical Engineering, JISCE

SL NO.	Name of the faculty	Journal	Indexed in Scopus/Thompsons & Reuters	Link of the journal in Scopus/Thompsons & Reuters index
6.	S Bag,	Paper Title:Automatic Switch Off Battery Charger	UGC care	https://ijrpr.com/uploads/V4ISSUE6/IJRPR14531.pdf
7.	D Mandal	Paper Title: Design and Development of an Adept Health Parameter System	UGC care	https://ijrpr.com/uploads/V4ISSUE6/IJRPR14526.pdf
8.	S Sikdar	Paper Title:Simple Approach for Early Disease Detection through Processing of Human Nail Images	UGC care	https://www.jetir.org/papers/JETIR2303344.pdf

Faculty Journal/Conference Papers:

Sl. No.	Faculty Author(s)	Title of the Paper	Journal/Conference Name	National/International	ISSN No.
1	Karabi Ganguly	Unveiling the U-Net Architecture for MRI Image Segmentation in Deep Learning	Journal of Xidian University Vol - 17(11); pp 83-96: November, 2023	International (SCOPUS)	1001-2400
2	Dibyendu Mandal & Sandip Bag	Smart Health Monitoring using Wearable Device Sensors: A Brief Review.	International Journal of Pharma and Biosciences. Vol-14(4); pp 46-61: October, 2023	International (WOS)	0975-6299
3	Karabi Ganguly	Image Processing for Automated Leukemia Detection and Stage Prediction	Journal of Xidian University Vol - 17(10); pp 1068-1080: October, 2023	International (SCOPUS)	1001-2400
4	Karabi Ganguly	Precision Measurement of Cancer Cell Diameter by Quantitative Analysis of MRI Data Using GUI	International Journal of Innovative Research in Technology. Vol- 10(2): pp 517-522: July 2023	International	2349-6002
5	Karabi Ganguly	A Non-Invasive and Predictive Machine Learning Approach to Detect Breast Cancer	International Journal of Research and Analytical Reviews. Vol- 10(3); pp 35-42: July 2023	International	2348-1269
6	Karabi Ganguly	Precision Measurement of Cancer Cell Diameter by Quantitative Analysis of MRI Data using GUI.	International Journal of Innovative Research in Technology. Vol- 10(2); pp 517-522: July 2023	International	2349-6002



Dr. Karabi Ganguly Invited as Resource Person and Speaker in Regional Science Congress-2023 organized by Regional Navodaya Vidyalaya Samiti



Dr. Sandip Bag:-Invited as Judge in Shyampur siddheswari Mahabiddyalaya science project exhibition anneshawn@ssm 2023