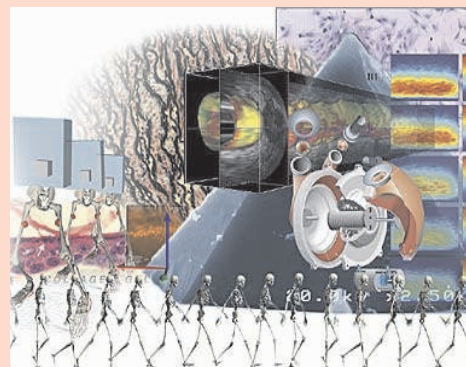


BIOMED NEWS 2022-2023

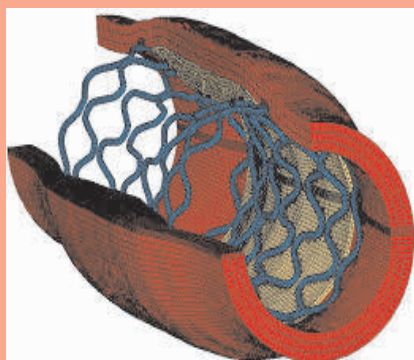


Volume-II
JANUARY TO JUNE-2023



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-INSTITUTEACTIVITYWITHCTS

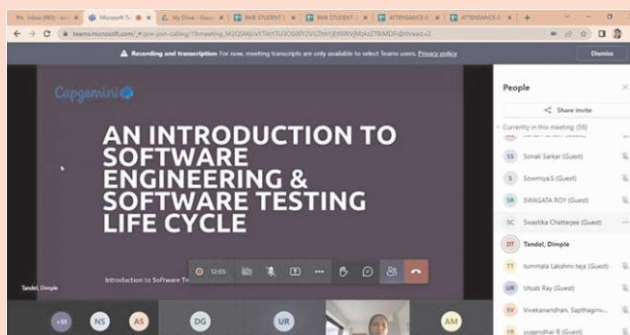
Future prospect discussion on budding engineering at Cognizant.

Sl No.	Name of Dept.	Name of the Industry	Date of Visit	Organized by (Name & Designation)	Outcome
01	BME	CTS	31.01.2023	JISCE-TNP	Discussing the future prospect of budding engineering at Cognizant.

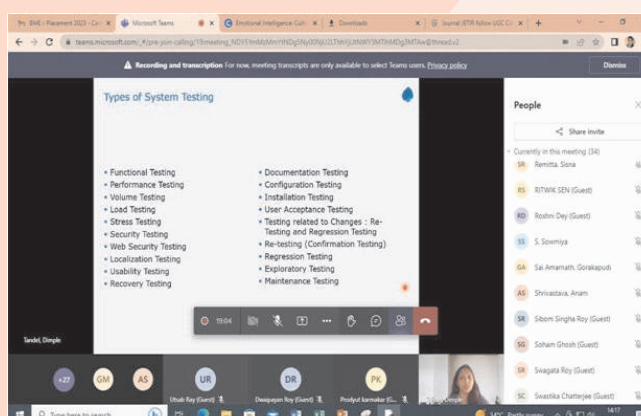


Discussion on to Software Engineering & Software Testing Life cycle with Capgemini

Sl No.	Name of Dept.	Name of the Industry	Date of Visit	Organized by (Name & Designation)	Outcome
01	BME	Capgemini	15.02.2023	HOD-BME	Introduction to Software Engineering & Software Testing Life cycle



Sl No.	Name of Dept.	Name of the Industry	Date of Visit	Organized by (Name & Designation)	Outcome
01	BME	Capgemini	29.03.2023	HOD-BME	Introduction to Software Testing



ONE-DAY SEMINAR & WORKSHOP ON VIGYAN-JYOTI SPONSORED BY DST-GOI

Sl. No.	Name of Visitor/ Guest Speaker	Designation/ Occupation	Seminar/ Workshop/ Conference Topic	Total Participant	Date	Sponsored by
1	HOD-BME and Faculty Members, BME-JISCE	HOD-BME and Faculty Members, BME-JISCE	Vigyan- Jyoti	20	13.04.23	DST-GOI



ONE-DAYSEMINER&WORKSHOPONVIGYAN-JYOTISPONSORED BY DST-GOI

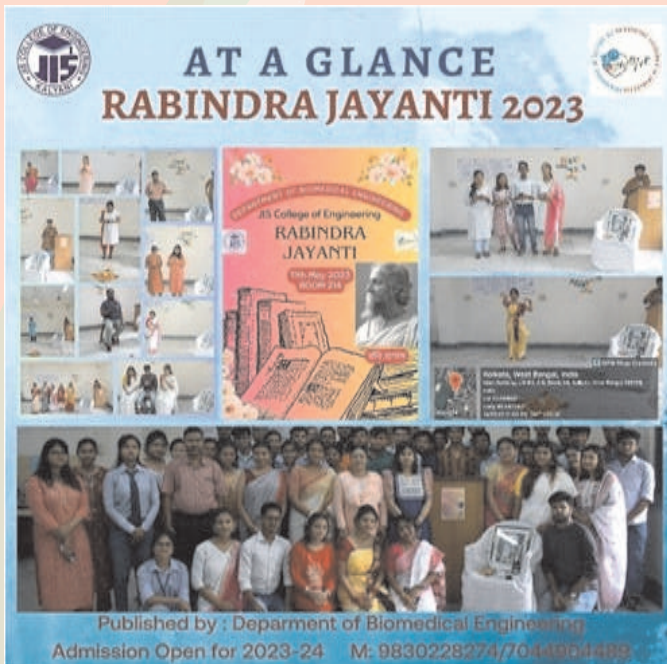
TRAINING ON REQUIREMENT ENGINEERING AS MoU EXECUTION ACTIVITY WITH CAPGEMINI

As a part of MoU execution activity for Capgemini, Dr. Karabi Ganguly (HoD- BME) conducted the in house training on Requirement Engineering for B.Tech BME final year students.

BMEEXTRA-ACADEMICACTIVITIES



DRAWING & PAINTING COMPETITION



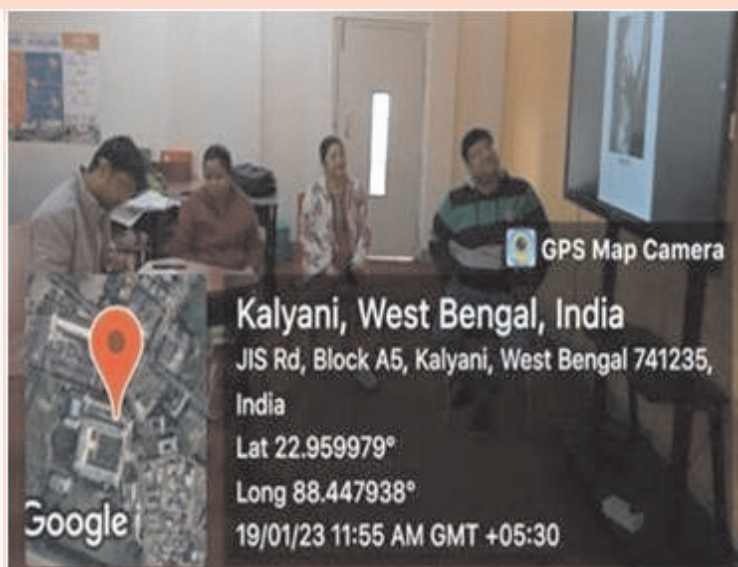
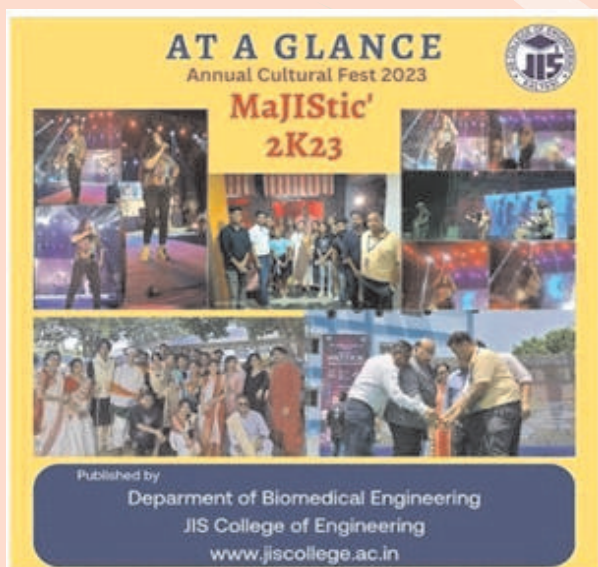
RABINDRA JAYANTI CELEBRATION



FAREWELL PARTY FOR BME 2023 GRADUATE BATCH



Cognizant Interaction Session with 1st Year Students & 4th Year Placed Students



Annual Cultural Fest-MAJISTIC 2K23-JISCE



A WARDED FOR Highest no of publication in JIS SANMAN 2023



JIS Innovation Award for Publication and Patent



Selected in Bengal Global Trade Expo 2023 from Engineers Connect



Awarded with token of appreciation from Google Cloud

Bengal Global Trade Expo 2023

January 25, 2023 - January 28, 2023
09:00 IST - 19:00 IST
Location: Biswa Bangla Mela Prangan (Milan Mela) Opp Science City
Directions: Near Trade Fair Grounds, Kolkata, West Bengal 700105

Barcode: 3767580625

3767580625
Ticket Number:
3767580625
Ticket Holder: Utsab Ray

Faculty Achievement

- Dr. Karabi Ganguly - Delivered Invited Talk on Biomedical Engineering eagragati at DD Bangla on 06.01.2023
- Dr. Karabi Ganguly - Delivered Invited Talkin 12th International Photographic Conference on 23.01.2023.
- Dr. Dibyendu Mandal - Successfully presented his research work in ICMSME2023on19.01.2023.
- Dr. Sandip Bag - Invited as Resource Person at UGC HRDC Refresher Coursefor Faculty on 03.03.2023
- Swati Sikdar - Delivered Invited Talkon Engineering Physiology & Engineering Psychologyon 07.03.2023.
- Dr. Karabi Ganguly- Invited as Resource Person at UGC HRDC Refresher Course for Faculty on10.03.2023.
- Dr. Karabi Ganguly-Invited as Resource Person at UGC HRDC Refresher Course for Faculty on13.03.2023 Sponsored by NEHU- Shillong
- Dr. Karabi Ganguly, Dr. Sandip Bag, Swati Sikdar, Dr. Dibyendu Mandal- Sensitization Programme on paper publication in indexed journals & Research on 12th &13 thAPRIL 2023.
- Ms. Sayanti Guha, Dr. Howa Begam, Ms. Sumana Banerjee, Ms. Swati Sikdar, Dr. D.Mondal, Dr.K. Ganguly, Dr. S.Bag- Successfully completedFDP on Research & Development from 10.4.23 to 13.4.23 & 17.4.23.
- Dr. Karabi Ganguly, Dr. Dibyendu Mandal- Successfully completed Workshop on Design Thinking on 27th & 28th June 2023 at JISCE.



FDP on NEP 2020



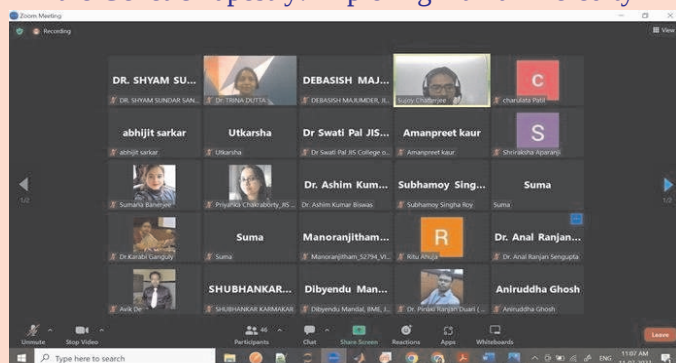
Workshop on Design Thinking



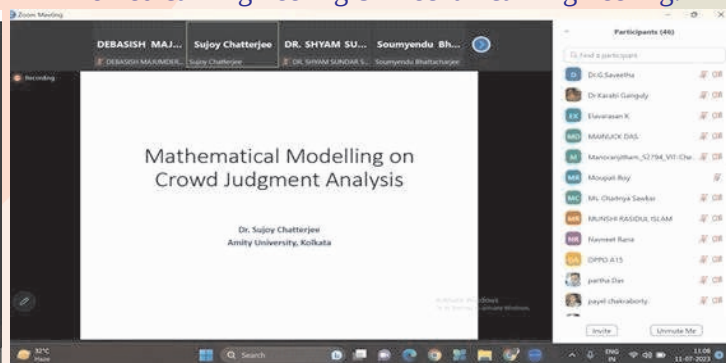
Invited talk at JNV KALYANI VIGYAN JYOTI PROJECT under DST. GOVT. of India on Unraveling the Genetic Tapestry: Exploring Human Heredity'



Invited talk as Resource Person at CN Calcutta News Live Panel Discussion on JISCE Campus: Scope of Biomedical Engineering & Mechanical Engineering.



One day FDP On Road MAP to Excellence



5Days FDP on Mathematical Modelling

Student Achievement

Sl.	Student Name	Year	Achievement	Venue/Organizer/ Certifying Body	Date
1	Utsab Ray	2023	Published his research work in an UGC Care Journal	IJSREM	16 Jan 2023
2	Utsab Ray	2023	Presented his research work in 12 th International Photographic Conference 2023	PAD	23-27 Jan 2023
3	Utsab Ray	2023	Selected in Bengal Global Trade Expo 2023 from Engineers Connect	Engineers Connect	25-28 Jan 2023
4	Utsab Ray	2023	Awarded with token of appreciation	Google Cloud	Jan 2023
5	Utsab Ray	2023	Published his research work in an UGC Care Journal	IJCRT	16 Feb 2023
6	Utsab Ray	2023	1 st position RANGMANCH ZINDEGIKA (Drama/Skit – Socio/Socio Economic Theme – Group)	JISCE	Feb 2023
7	Utsab Ray	2023	3 rd position in RANGMANCH ZINDEGIKA (Drama/Skit – Socio/Socio Economic Theme – (Group)	JISCE	Feb 2023
8	Utsab Ray	2023	2 nd position in BAND (Group)	JISCE	Feb 2023
9	Mehuli Poddar	2023	2 nd position in RANGMANCH ZINDEGIKA (Drama/Skit – Socio/Socio Economic Theme – (Group)	JISCE	Feb 2023
10	Sneha Das	2023	3 rd position in RANGMANCH ZINDEGIKA (Drama/Skit – Socio/Socio Economic Theme – (Group)	JISCE	Feb 2023
11	Asmita Chakraborty	2023	1 st Position in FASHION SHOW (Group)	JISCE	Feb 2023
12	Asmita Chakraborty	2023	1 st position in MALANG - E –MRIDANG (Classical / Semi Classical Dance – Solo	JISCE	Feb 2023
13	Kuhali Ghosh	2023	1 st Position in FASHION SHOW (Group)	JISCE	Feb 2023
14	Sahali Ghosh	2023	1 st Position in FASHION SHOW (Group)	JISCE	Feb 2023
15	Atmika Paul	2023	1 st Position in FEET BEAT (Dance – Any Form – Group)	JISCE	Feb 2023
16	Aikantika Roy	2023	1 st position in RECITATION (Solo)	JISCE	Feb 2023
17	Anubhav Mukherjee	2023	2 nd Position in WINGS OF IMAGINATION – Sketching on the Spot	JISCE	Feb 2023
18	Smita Rakshit	2023	3 rd Position in WINGS OF IMAGINATION – Sketching on the Spot	JISCE	Feb 2023
19	Dipal Kr Singh	2023	2 nd Position in PHOTOGRAPHY COMPETITION	JISCE	Feb 2023

Student Publication

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 Scientific Research in Engineering & management)	International	16 Jan 2023	2582-3930	Peer Reviewed
Utsab Ray	K Ganguly M Pal	Conference Presentation (12 th International Photographic Conference 2023)	International	23-27 Jan 2023	978-93-5786-184-7	Peer Reviewed
Utsab Ray	K Ganguly	Journal Paper (International Journal of Creative Research Thoughts)	International	16 Feb 2023	2320-2882	Peer Reviewed
Utsab Ray	K Ganguly	Journal Paper (Journal of Emerging Technologies & Innovative Research)	International	28 Feb 2023	2349-5162	Peer Reviewed
Saikat Saha, Sandip Jana, Dipal Kumar Singh, Akash Kumar Handique, Utsab Ray	K Ganguly	Journal Paper (International Journal of Innovative Research in Technology)	International	09.03.2023	2349-6002	Peer Reviewed
Rakhi Pandey, Iqra Faizyab	S Bag D Mandal	Journal Paper (International Journal of Scientific Research in Engineering & management)	International	10.03.2023	2349-5162	Peer Reviewed
Dipayan Mondal Mili Gupta, Sutanu Chakravorty	S Sikdar K Ganguly	Journal Paper (Journal Of Emerging Technology and Innovative Research)	International	17 March 2023	2349-5162	Peer Reviewed
Rupankar Ghoshal, Sujaya Dey Udbhasita Pal	D Mandal S Bag S Sikdar	Journal Paper (International Research Journal of Engineering and technology)	International	25 March 2023	2395-0072	Peer Reviewed
T Paul, A Chowdhury, S Roy, D Mondal, M Samaddar, N Kar	A Patra	Journal Paper (International Journal of Research Publication and Reviews)	International	24 March 2023	2582-7421	Peer Reviewed
U Ray J Mallick	K Ganguly, S Bag	Journal Paper (Journal of Emerging Technology and Innovative Research)	International	30 march 2023	2349-5162	Peer Reviewed
U Ray, S Aktar, A Chakraborty, S Kabasi P Singha, A Mondal	A Patra	Journal Paper (International Journal of Research Publication and Reviews)	International	April 2023	2582-7421	Peer Reviewed
Utsab Ray	K Ganguly	Journal Paper (International Journal of Research and Analytical Reviews)	International	13 April 2023	E- ISSN 2348 - 1269, P- ISSN 2349 -5138	Peer Reviewed
Utsab Ray	K Ganguly	Journal Paper (International Journal of Creative Research Thoughts)	International	09 April 2023	2320 - 2882	Peer Reviewed
Utsab Ray	K Ganguly	Journal Paper (International Journal of Creative Research Thoughts)	International	11 June 2023	2320 - 2882	Peer Reviewed
R Jha, S Mustaree, J Chakraborty, T Sarkar M RudraPal	S. Bag	Journal Paper (International Journal of Research Publication and Reviews)	International	June 2023	2582-7421	Peer Reviewed
J Saha, S Das, A Kumar, A Mukhopadhyay H Shaikh, S Paul	S Sikdar	Journal Paper (International Journal of Research Publication and Reviews)	International	June 2023	2582-7421	Peer Reviewed
R Shaikh, S Jaman, A Saha, S Mondal R Choudhury	D Mandal	Journal Paper (International Journal of Research Publication and Reviews)	International	June 2023	2582-7421	Peer Reviewed

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

- **Dr. Karabi Ganguly, Dr. Dibyendu Mandal**- Successfully completed Workshop on Design Thinking on 27th & 28th June 2023 at JISCE.
- **Swati Sikdar, Sumana Banerjee**- Successfully completed FDP on NEP 2020 held on 27.06.2023.

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, S Sikdar	Book Chapter- Effective Health Screening and Prompt Vaccination to Prevent the Spread of Covid-19 and Minimize its Adverse Effects	Scopus	https://link.springer.com/chapter/10.1007/978-3-031-19752-9_14
2.	D Mandal, S Bag, S Sikdar, K Halder	Paper Title: Extraction and characterization of acid soluble Collagen Type I from Sperata Aor	UGC Care	ISSN: 2349 5162 (16 th Jan 2023)
3.	K Ganguly	Paper Title: Deployment of Random Forest Algorithm to Prophesize the Exact Price of Gold.	UGC Care	International Journal of Scientific Research in Engineering & Management ISSN: 2582 3930 (16 th Jan 2023)
4.	D Mandal	Paper Title: Electrochemical Study of Graphitic Oxide and Reduced Graphene Oxide Emphasizing on Their Defect Densities	UGC Care	Presented in ICMSME2023 (19-20 Jan 2023)
5.	K Ganguly	Paper Title: Probing of Chest X-Ray Image Using Deep Learning to Evince Physiological Abnormalities & Disease Conditions	UGC Care	Presented in 12 th International Photographic Conference 2023 (23-27 Jan 2023)
6.	K Ganguly	Paper Title: Machine Learning Predictive Model to detect the fraudulent use of credit card	UGC Care	IMPACT FACTOR: -7.97
7.	K Ganguly	Paper Title: Machine Learning Predictive Model to detect spam email	UGC Care	IMPACT FACTOR: -7.95
8.	D Mandal	Paper Title: Constitutive modeling of human cornea through fractional calculus approach	SCI	https://aip.scitation.org/doi/10.1063/5.0138730
9.	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
10.	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

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
10.	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
11.	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
12.	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
13.	K Ganguly	PREDICTION OF HONE CALORIE EXPENDITURE USING ADVANCED ML	UGC care	https://jetir.org/index.php?vol=11&issue=6&pubmonth
16.	S Bag,	Paper Title:Automatic Switch Off Battery Charger	UGC Care	https://ijrpr.com/uploads/V4ISSUE6/IJRPR14531.pdf
15.	D Mandal	Paper Title: Design and Development of an Adept Health Parameter System	UGC Care	https://ijrpr.com/uploads/V4ISSUE6/IJRPR14526.pdf
16.	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	Dibyendu Mandal	Development of Silica-Collagen Hybrid as Corneal Substitute Through Sol-Gel Route	BioNanoScience. Vol - 13; pp2441-2447: June 2023	International (SCOPUS)	2191-1630 (P) 2191-1649 (O)
2	Karabi Ganguly	Prediction of Hone Calorie Expenditure using Advanced ML	International Journal of Creative Research Thoughts. Vol - 11(6); pp d91–d97: June 2023	International	2320-2882
3	Karabi Ganguly	Machine Learning Predictive System to Identify Heart Disease at an Early Stage.	International Journal of Creative Research Thoughts. Vol - 11(4); pp c262-269: April 2023	International	2320-2882
4	Karabi Ganguly	Enactment of Machine Learning Classification Algorithms to Develop a Diagnostic Tool for Predicting Diabetes.	Journal of Research and Analytical Reviews. Vol-10(2); pp 855-865: April 2023	International	2348-1269 (O) 2349-5138 (P).
5	Dibyendu Mandal	Constitutive modeling of human cornea through fractional calculus approach	Physics of Fluids. Vol - 35(3), pp 031907 March 2023	International (SCOPUS, SCIE)	1070-6631(P) 1089-7666(O)
6	Sandip Bag & Dibyendu Mandal	Biomechanical Measurement of Muscle Force on Various Degree of Flexion at Elbow Joint	Journal of Emerging Technologies and Innovative Research. Vol - 10(3), pp b589-b593, March 2023	International	2349-5162

Department of Biomedical Engineering, JISCE

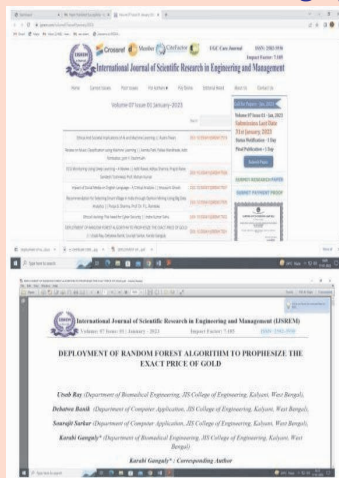
Sl. No.	Faculty Author(s)	Title of the Paper	Journal/ Conference Name	National/ International	ISSN No.
7	Karabi Ganguly & Swati Sikdar	Tracing out the Discomfort & Dissymmetry in The Lower Extremity Considering the Aspect of Foot Pressure	Journal of Emerging Technologies and Innovative Research. Vol- 10(3), pp d368-d376, March 2023	International	2349-5162
8	Karabi Ganguly & Sandip Bag	Examination of Artificial Intelligence in Image Processing Deploying Deep Learning to Identify Abnormal Physiological Conditions from Chest X-Ray.	Journal of Emerging Technologies and Innovative Research. Vol-10(3), pp h26-h33, March 2023	International	2349-5162
9	Dibyendu Mandal, Sandip Bag & Swati Sikdar	Arduino based wireless tracking of Sleep Apnea through monitoring of Health parameters.	International research Journal of Engineering and Technology Vol-10(3), pp 657-661. March 2023	International	2395-0056
10	Dibyendu Mandal, Sandip Bag, Swati Sikdar & Kumares Halder	Extraction and characterization of acid soluble Collagen Type I from Sperata Aor	Journal of Emerging Technologies and Innovative Research. Vol- 10(1), pp c136-c140, January 2023	International	2349-5162
11	Karabi Ganguly	Stable Fine Tuned Wide Range Variable Power Supply for Health Care Application.	International Journal of Innovative Research in Technology. Vol- 9(10); pp 561-566. March, 2023	International	2349-6002

Ki Hote Chai
2023

Biomedical Engineering-এ অগ্রগতি
EPISODE-61
@ DD Bangla LIVE
 Friday | 06 January, 2023 | 7:30 PM Onwards
Speakers:
Dr. Karabi Ganguly
 HoD, Dept. of Biomedical Engineering
 JIS College of Engineering, Kalyani
Mr. Rajat Roy
 Consultant Biomedical Engineering
www.jisgroup.org



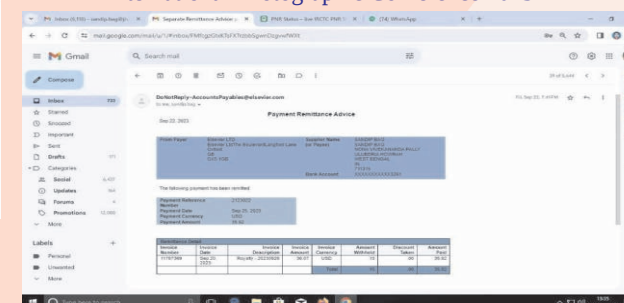
Dr. Karabi Ganguly Delivered Invited Talk on “Biomedical Engineering e agragati” on 06.01.2023



Dr. Karabi Ganguly Got her research work published in an UGC Care International Journal



Dr. Karabi Ganguly Presented her research work in 12th International Photographic Conference 2023



Dr. Sandip Bag (Professor BME) get Royalty from Elsevier Ltd



Dr. Dibyendu Mandal Awarded for Outstanding Presentation in ICMSME 2023