

**UNIVERSITY OF ENGINEERING & MANAGEMENT, KOLKATA**



**UNIVERSITY OF ENGINEERING & MANAGEMENT**  
Good Education, Good Jobs

University Area, Plot No. III - B/5, Main Arterial Road,  
New Town, Action Area - III, Kolkata-700160

# **RESEARCH DIRECTORY**

**Vol. 1**  
**July, 2021**

# **RESEARCH DIRECTORY**

**July 2021  
Volume 1**



**UNIVERSITY OF ENGINEERING & MANAGEMENT,  
KOLKATA**

University Area, Plot No. III – B/5, New Town, Action Area – III, Kolkata – 700160

# FOREWORD

The Research Directory is a compendium that provides a listing of researchers by institute and their main areas of interest. This gives an access to the centralized information on various facets and directions of researches being pursued in an institution. The Directory contains the database of faculty who are open to discuss research opportunities with the undergraduate and post graduate students. This also identifies the Faculty Research Mentors in an Institution.

The Research Directory regularly being published by leading Research Universities in the world like Massachusetts Institute of Technology, University of California, John Hopkins University, Texas A & M University, Princeton University, George Institute of Technology, Stanford University, University of California-Berkley, Columbia University and many others that carries its legacy and long heritage in research and innovation.

Top Tier, Nationally Competitive Research Universities popular for world class research excellence develops comprehensive documentation of versatile research activities not only for the University's own circulation but for dissemination of knowledge to the outside world. This is one of the best practices they follow.

Keeping in pace with the current global trend, University of Engineering & Management, Kolkata is publishing its own Research Directory for reinforcing the research culture and to create opportunities for interdisciplinary collaborative researches further through intensive networking.



Prof. (Dr.) Sajal Dasgupta  
Vice Chancellor  
UEM, Kolkata

# MESSAGE FROM THE DESK OF SHRI SHEKHAR DUTT

**Shekhar Dutt**, SM, IAS(Retd)  
Former Governor of Chhattisgarh State



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I am extremely happy to learn that the University of Engineering and Management (UEM), Kolkata, has initiated the publication of its Research Directory. This effort will be towards recording all the initiatives which the University and its Scholars have taken for Research and Entrepreneurship Development activities during this period.

Over the last few years UEM has conducted research oriented conferences at the University of British Columbia Vancouver, Canada; Columbia University, New York, USA; Sasin Graduate Institute of Business Administration of Chulalongkorn University, Bangkok, Thailand; University of Nevada, Las Vegas, USA etc where eminent Scientists, Academicians and Scholars of International Eminence as well as Faculty members of UEM presented their papers. A large number of similar conferences have been organized by UEM within the country also every year. This has enabled the Faculty as well as the Scholars to keep abreast of all the knowledge as well as the challenges which are emerging from time to time in the domains of Technology and Management.

Proper documentation is indeed, very important in the world of Education, Science and Academics. Such information enables the serious Scholars and the Faculty to show case the work carried out in the University and also to help transmission of the knowledge thus developed. Further, this would enable the serious Scholars and researchers with valuable reference material.

I congratulate the UEM, its Vice Chancellor and its talented faculty for taking this initiative. May it become the start of a healthy scientific discussion and dialogue amongst the scholars on the subjects.

I wish everyone all joy in this activity and pray for their success.

Jai Hind,

July 31<sup>st</sup>, 2021

  
(SHEKHAR DUTT)

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#### Former

- Deputy National Security Adviser Govt. of India
- Defence Secretary Govt. of India
- Secretary Defence Production Govt. of India
- Secretary Ministry of Health Govt. of India
- Director General Sports Authority of India

# MESSAGE FROM THE DESK OF PROF. D.S.CHAUHAN



Prof. D.S. Chauhan

Pro-Chancellor

Member Board of Governors, Doon School,

Former VC, UPTU, Lucknow & UTU Dehradun

Former VC, LPU, Punjab & J.P. University, IT (HP)

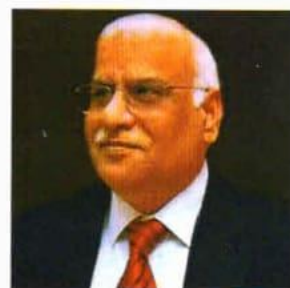
Former Member, University Grant Commission, NBA (AICTE), NABL (DST)

Former Secretary General, Association of Indian University (AIU) New Delhi



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UNIVERSITY  
MATHURA

Accredited with **A** Grade by NAAC



## Message

It gives me great honour and privilege to congratulate for 1<sup>st</sup> publication of Research Director during the course of journey. I am highly impressed with its contents. This publication will help focus attention of researchers and academicians on the excellent record of research done, as well as help create enthusiasm among current and future members of the academic community.

I wish this initiative all the best and hope it will foster more quality research, with publications in high impact factor international journals. The incentives of good research are many – both for an individual and for the larger academic community. I sincerely pray for the success of your collective efforts and congratulate the publishers of this visionary publication.

Prof, D.S. Chauhan

Pro-Chancellor

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# MESSAGE FROM THE DESK OF CHANCELLOR



It is a matter of great pleasure for all of us to note that the university is publishing its first Research Directory which is a noble initiative. This Directory will be published quarterly and will encompass all the research and entrepreneurship activities undertaken by faculty and students of the University during the particular quarter. Since this is the first issue of the Directory it covers the research achievements of the University over the past one year. Flipping through the directory one understands how enterprising and innovative our students of UEM, Kolkata are and how wonderfully their research careers are shaping up under the mentorship of our faculty. Our Faculty are involved in frontline research activities which are reflected by the highly reputed international journals in which their articles are getting published. I wish the students and faculty members of UEM, Kolkata keep up their entrepreneurial and research undertakings and keep growing under the mentorship of the Deans and Vice Chancellor of UEM, Kolkata.

A handwritten signature in blue ink, consisting of the letters 'S.C.' in a stylized, cursive-like font.

Prof. (Dr.) Satyajit Chakrabarti  
Chancellor  
UEM, Kolkata



# MESSAGE FROM THE DESK OF VICE-CHANCELLOR



Research Intense Education and Creation of Knowledge are two distinctive features of a University. Research Outcomes are revealed through publication of papers in reputed journals & conferences, Research project activities, Filing of patents for new concepts & products, Testing & Consultancies, Creation of knowledge & Innovation.

University of Engineering & Management, Kolkata (UEMK) is evolving towards a Center of Excellence involving all spheres of research.

Since last few months, I was walking down memory lane to unearth best practices embedded seamlessly into the frontline research activities of BESU (erstwhile BE College, Shibpur) while I was functioning as Dean (Research & Consultancy) almost 30 yrs back. Suddenly I recollected that with the inspiration of our seniors we had published a RESEARCH DIRECTORY to develop a comprehensive document compiling various outcomes. At that time there was no scope to create soft copies of documents or computer edited versions. Everything was done manually and with hard labor.

Today, in UEMK, we have decided to implement the same idea. Information on research outcomes is available through various sources. Our objective is to bring them together under one umbrella to collate and disseminate information professionally.

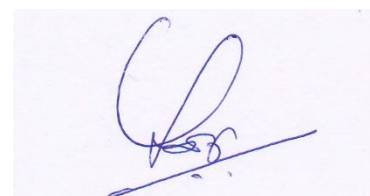
I sincerely expect that after publication of the Directory, all our faculty and students will draw immense benefits, especially while presenting before regulatory authorities and accredited agencies.

UEMK should continue publishing this booklet periodically with a view to project achievements of the University on research front.

I like to convey my sincere thanks and gratitude to those Faculty and staff whose untiring efforts and high-end dedication have made it possible to publish this Directory within a very short span of time.

I owe my thankfulness to the entire teaching fraternity of the University.

Best wishes to all.

A handwritten signature in blue ink, consisting of a large, stylized 'S' followed by a horizontal line and some smaller, less distinct characters.

Prof. (Dr.) Sajal Dasgupta  
Vice Chancellor  
UEM, Kolkata

# MESSAGE FROM THE DESK OF PRO VICE-CHANCELLOR



The Research Directory of University of Engineering and Management, Kolkata aims to bring under one umbrella the research and entrepreneurial endeavours undertaken by the students and faculty members of this young and growing University. Our highly motivated students have not only published their research works in international journals and applied for patenting their inventions; they have also started their own startup companies with seed money provided by the University. We want our students to grow into good innovators and entrepreneurs who will be worthy citizens of our country and assets for our society. Our teachers are of course playing a significant role in guiding the students. The high grade international journals reported in this Research Directory are also a mandate of the quality of research studies our faculty members are involved in.



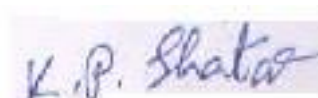
Prof. (Dr.) Satyajit Chakrabarti  
Pro Vice Chancellor  
UEM, Kolkata



## MESSAGE FROM THE DESK OF DEAN (ENGINEERING)

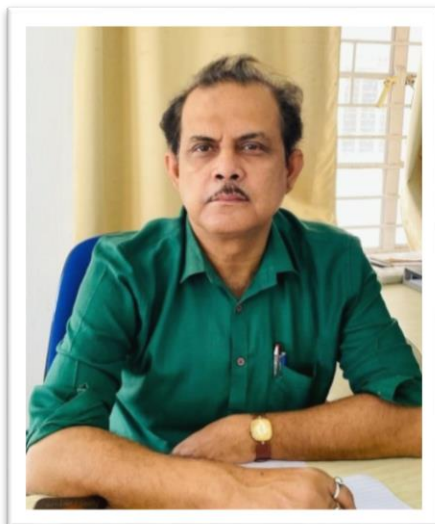


I express my heartfelt congratulations to all students and faculty members of the University of Engineering and Management, Kolkata (UEMK) for the wide spectrum of research and developmental activities portrayed in the Research Directory. I would especially like to commend the Vice Chancellor, UEMK for his vision of compiling all various research activities of the University in this Directory. It will help us to realize our strengths and weaknesses in this domain and also encourage inter disciplinary intercontinental research activities. Incidentally, It may be noted that the total number of Research Papers, Books and Book Chapters (All International) of the undersigned are greater than one hundred from 2015-2017 in accordance with Google Scholar, a fact which he firmly hopes will surely inspire our beloved students and the faculty members to exceed it. I wish that the combine efforts of all of them keep UEMK marching steadily on the path of excellence in research and entrepreneurship under the wonderful guidance of Chancellor, Vice Chancellor, Pro Vice Chancellor and the Deans of the University.



Prof. (Dr.) Kamakhya Prasad Ghatak  
Dean (Engineering)  
UEM, Kolkata

# MESSAGE FROM THE DESK OF DEAN (RESEARCH)



I would like to welcome you to the University Research Directory to learn about our efforts in research. The University's Research Excellence is built upon subject matter experts from about 11 departments and research group that join over more than 170 research scholars to pursue joint endeavors in myriad research and development program of the University.

We will do our best in this faculty to make studying here a transformative learning experience and a spring board to a bright and fulfilling future for our students. We also welcome our alumni to visit us to provide their views and feedback and to lend us their support.

I believe this is what striving for more meaningful work can help us to do.



Prof. (Dr.) Abir Chattopadhyay  
Dean (Research)  
UEM, Kolkata

## MESSAGE FROM THE DESK OF DEAN (SCIENCE)



The Research Directory of University of Engineering and Management, Kolkata is a mandate of the innovative and highly motivated students that our enthusiastic faculty members are nurturing. The entrepreneurial activities and startups our students are involved in have resulted not only due to the seed money and constant encouragement provided by the University but also due to their enterprising attitude and untiring efforts. Our faculty members are also carrying on panorama of research activities in various branches of science and technology and their works are getting published in highly reputed journals. Some of the faculty members are also patenting their inventions along with their students. I wish students and faculty members of UEMK keep on their proliferating research and developmental activities in years to come.

A handwritten signature in blue ink, reading 'R. Ganguly', with a horizontal line underneath.

Prof. (Dr.) Rajiv Ganguly  
Dean (Science)  
UEM, Kolkata

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**Publications in  
International / National  
Journals  
(June 2020 to July 2021)**

## Department of Computer Application

1. Classification of Indian Classical Music with Time-Series Matching using Deep Learning, Das A. et al, IEEE Access, DOI: 10.1109/ACCESS.2021.3093911, Print ISSN: 2169-3536 Online ISSN:2169-3536
2. Early detection of Heart Disease by using the most significant factors of Diabetes using Data Mining Techniques, Chaudhuri, Das A., & Banerjee D. K., Asian Journal For Convergence In Technology (SCOPUS),2021, Vol:7(1), 168-178. ISSN: 2350-1146
3. A novel enhanced decision tree model for detecting chronic kidney disease, Chaudhuri, A.K., Sinha, D., Banerjee, D.K. et al. Network Modeling Analysis in Health Informatics and Bioinformatics Vol:10, No. 29 , 2021, (2021). <https://doi.org/10.1007/s13721-021-00302-w> (ESCI, SCOPUS), ISSN: 2192-6670
4. Application of data mining techniques for avoiding underestimation of an event, Chaudhuri, Das A., & Banerjee D. K., Asian Journal For Convergence In Technology (SCOPUS),2021, Vol:7(1), 179-189. ISSN: 2350-1146
5. Early Detection of Cardiovascular Disease in Patients with Chronic Kidney Disease using Data Mining Techniques, Chaudhuri A. K., Ray A., Das A., Chakrabarti P., & Banerjee D. K. Asian Journal For Convergence In Technology (SCOPUS), 2021, 6(3), 65-76
6. Character Segmentation for Handwritten Bangla Words using Image Processing, P. Mitra, K. Bhattacharjee, A. Das, et. al., in American Journal of Electronics & Communication (AJEC), Vol. 1, Issue 3, Pp. 8 - 11. May 2021. ISSN: 2690-2087
7. A Large Software System Test Engineering Practices, Biswadeb Bandyopadhyay, Vol 1, Issue 3 of AMERICAN JOURNAL OF ADVANCED COMPUTING (AJAC) on 18.08.2020
8. Ticket Analytics by an AMS Team to Assess Applications Deficiencies, Biswadeb Bandyopadhyay, Vol 1, Issue 3 of AMERICAN JOURNAL OF ADVANCED COMPUTING OF ELECTRONICS & COMMUNICATION (AJEC) on 28.05.2021
9. Dutta S., Mitra A., Padhy N., Khan G. (2021), Review on Sensors for Emotion Recognition. In: Reddy K.A., Devi B.R., George B., Raju K.S. (eds) Data Engineering and Communication Technology. Lecture Notes on Data Engineering and Communications Technologies, vol 63. Springer, Singapore. [https://doi.org/10.1007/978-981-16-0081-4\\_57](https://doi.org/10.1007/978-981-16-0081-4_57)

————— × —————



## **Department of Business Administration**

10. Tests of the Fama and French Three Factor Model with reference to Industry Cost of Equity : Evidence from India, Finance India, Smita Datta & Anindita Chakraborty, XXXIV(2), 379 – 394. (ISSN: 0970-3772)
11. A Comparison of Traditional and Alternative Three Factor Asset Pricing Models in India, Smita Datta & Anindita Chakraborty, GIS Science Journal, 8(1), 1270 – 1288. (ISSN: 1869-9391)
12. Revisiting Marketing Management Teaching Pedagogy: A Study based on the voice of Indian Marketing professionals. Bhattacharya, S. Kumar V. R. and Chattopadhyay, S FIIB Business Review, SAGE Publications (This journal is indexed in SCOPUS, ABI Inform, EBSCO, UGC), May 2021
13. A study of the adaptation to innovative online teaching learning pedagogy by stakeholders in Covid times. Indian Journal of Ecology, Dr. Subrata Chattopadhyay and Arunava Dalal, Volume -18, Special Issue 14, April 2021.(ISSN 0304-5250, indexed in SCOPUS)
14. Impact of Employee Demography, Family Responsibility and Perceived Family Support on Career Resilience, Sujata Bose, Global Business Review – August 2020 (ISSN: 0973 0664)
15. Challenges Encountered by Healthcare Providers in COVID-19 Times: An Exploratory Study, Journal of Health Management, Mitali Sengupta, Arijit Roy, Arnab Ganguly, Kuldeep Baishya, Satyajit Chakrabarti, Indraneel Mukhopadhyay, SAGE Publications, 15 June 2021. (This journal is indexed in SCOPUS, ESCI, EBSCO, UGC), <https://doi.org/10.1177/09720634211011695>
16. A comparative analysis on the performance of Mudra Yojana from 2015- 2020:- With special reference to different sections of the society, Dr Lalima Mukherjee, Smart society journal publication -April 2021

————— × —————

## **Department of LAW**

17. ARTICLE : An Effort to Unveil the Best Test on Criminal Attempt - Decoding Judicial Interpretations of India, UK and USA, Roy, Souvik, PalArch's Journal of Archaeology of Egypt/ Egyptology, PalArch Foundation, E-ISSN: 1567-214X, – [Vol. 17 No. 7 (02/12/2020) PalArch's Journal of Archaeology of Egypt/ Egyptology ISSN: 1567-214X] as a first author- Scopus, Scimago, Google Scholar Indexed.
18. Legal Protection to tackle employment deficiencies in the Govt Sector during COVID-19, Mazumdar, Mehendi, International Journal of Legal Enforcement Journal-, June 2021

————— × —————

## **Department of Electrical Engineering**

19. A compact polarized reconfigurable stacked microstrip antenna for WiMAX application, International Journal of Microwave and Wireless Technologies, (SCI), pp. 1-16 January 2021
20. A compact circularly polarization isosceles triangular microstrip patch antenna with parasitic elements for multiband application Microwave and Optical Technology (SCI), Vol.60, No.10, pp. 3275 -3282 January 2021
21. A low profile miniaturized circular microstrip patch antenna for dual band application, Frequenz (SCI) Vol.74, No. 9-10, pp. 333 -349, February 2021
22. A Predictable Active Queue Management to reduce sensitivity of RED parameters, International Journal of Engineering & Technology, Science Publishing Corporation, Dubai, April 2021
23. Effect of TCO, BSF and Back contact barrier on CDs/ CdTe solar cell: Modelling and Simulation, Journal of Mechanic of Continua and Mathematical Sciences (JMCMS), ISSN No.: 2454-7190, DOI: 10.26782/Jmcs.2021.04.009, April 2021
24. Design of Encoder circuit using Layered NAND and NOR gates in Quantum Dot Cellular Automata, International Journal of Nanoscience and Nanotechnology, Vol. 17(1), pp. 17-21, ISSN No.: 2423-5911 May 2021

————— × —————

## Department of Bio Technology

25. Analyzing the concentration of bioactive molecules in hydroponically grown plants, Mukherjee, Susmita, Paul Sonali, International Journal of Agricultural Sciences and Veterinary Medicine. 2021. 9: 10-14
26. Adulteration in Spices – A Threat to Human Health and Well Being. , Mukherjee, Susmita, Paul Sonali, American Journal of Applied Biotechnology Research. 2020. 3: 25-28.
27. RNAi technology and Possible Vaccines to Combat SARS CoV2., Talukder, Pratik, Applied Biochemistry and Biotechnology, [SCI] volume 193, pages1744–1756 (2021), 2021
28. Role of Phytochelatin and Metallothionein in phytoremediation of heavy metals by Aloe vera L. (Aloe barbadensis Miller), [SCIE] Talukder, Pratik, Journal of Indian Chemical Society 97 (4), 2020
29. Regulation of Induction of Phenylalanine Ammonia Lyase and Its Role in Production of Phenolic Compounds in Plants, Talukder, Pratik, International Journal of Current Research in Biosciences and Plant Biology, [SCOPUS] 7(6), 55-63, 2020
30. Nutrient Sensing: A New Emerging Pathway. ,Talukder, Pratik ,American Journal of Applied Bio-Technology Research (AJABTR), Vol: 1(2), Pg: 15-24, 2020
31. Expression of Somatic Embryogenesis Receptor Kinase (SERK) gene and its regulation under the influence of exogenous additives during in vitro somatic embryo development in medicinal plants. Talukder, Pratik ,American Journal of Applied Bio-Technology Research (AJABTR), Vol: 1 (1), Pg: 34-43, 2020.
32. A Comparative study on the impact of bio fertilizer and chemical fertilizer in the biosynthesis of secondary metabolites in Okra (*Abelmoschus esculentus* L.) ,Talukder, Pratik , American Journal of Applied Bio-Technology Research (AJABTR), Vol: 1(2), Pg: 44-53, 2020
33. Covid 19 medicines: Drugs which entered clinical trial. American Journal of Applied Bio-Technology Research (AJABTR), Talukder, Pratik ,Vol: 1(3), Pg: 44-53, 2020.
34. Polyamines, Metallothioneins and Phytochelatins - Natural Defence of plants to mitigate heavy metals, Talukder, Pratik ,Studies in Natural Products Chemistry [SCOPUS] 69: 227-261, 2021
35. Studies on blocking of replicase of human corona virus by bioactive compounds-In silico and Molecular Docking Studies, Lahiri, Dibyajit, Nag, Moupriya, International Journal of Scientific Research in Biological Sciences (UGC Approved) [SCOPUS], 7(3), 2020
36. Effects of SARS-COV-2 Viral Infection on Cancer Patients: A Biological and Statistical Study during the COVID-19 Outbreak, Lahiri, Dibyajit, Nag, Moupriya, American Journal of applied biotechnology research(ISSN- 2689-8500), July, 2020
37. Production and purification of bacteriocin from *Leuconostoc lactis* SM 2 strain,Lahiri, Dibyajit, Nag, Moupriya, Biocatalysis and Agricultural Biotechnology,[SCOPUS] 2020, 30, 101845
38. Phytocompounds of *Curcuma longa* extract are more effective against bacterial biofilm than pure curcumin only: An in-vitro and in-silico analysis ,Lahiri, Dibyajit , Nag, Moupriya, Kuwait Journal of Sciences,[SCIE] 48 (20) 2021
39. The Chemistry Of Antibiofilm Phytocompounds, Lahiri, Dibyajit, Nag, Moupriya, Mini Reviews in Medicinal Chemistry,[SCIE] 21(9): 2021
40. Microbiologically synthesized nanoparticles and their role in silencing the biofilm signaling cascade, Frontiers in Microbiology,[SCI], Lahiri, Dibyajit, Nag, Moupriya, doi: 10.3389/fmicb.2021.636588, 2021
41. Catechin as the most efficient bioactive compound from *Azadirachta indica* with antibiofilm and quorum sensing activities against dental biofilm: an in vitro and in silico study., Lahiri, Dibyajit ,Nag, Moupriya, Applied Biochemistry and Biotechnology,[SCI], Springer, 2021 Jan 26. doi: 10.1007/s12010-021-03511-1

42. Antibiofilm activity of  $\alpha$ -Amylase from *Bacillus subtilis* and prediction of the optimized conditions for biofilm removal by Response Surface Methodology (RSM) and Artificial Neural Network (ANN), Lahiri, Dibyajit ,Nag, Moupriya. *Applied Biochemistry and Biotechnology*[SCI], Springer, 2021 Mar 1. doi: 10.1007/s12010-021-03509-9
43. Bacterial biopolymer: Its role in pathogenesis to effective biomaterials ,Lahiri, Dibyajit ,Nag, Moupriya, *Polymers* (MDPI), 13(8), 2021.
44. Biodegradation of used polyethylene bags by a new marine strain of *Alcaligenes faecalis* LND-1,Lahiri, Dibyajit ,Nag, Moupriya, *Environmental Science and Pollution Research*, DOI: 10.1007/s11356-021-13704-0
45. Amylases: biofilm inducer or biofilm inhibitor? *Frontiers Cellular and Infection Microbiology* 2021, Lahiri, Dibyajit ,Nag, Moupriya, (DOI: 10.3389/fcimb.2021.660048)
46. Strategies of Nanomaterial Application for Enhanced Wound Curing: An Overview, Lahiri, Dibyajit ,Nag, Moupriya, *Nano Biomed. Eng.*, 13 (2), 2021
47. Recent trends in approaches for optimization of process parameters for the production of microbial cellulase from wastes, Lahiri, Dibyajit, Nag, Moupriya, *Environmental Sustainability* (2021)
48. Antibiofilm and Anti-Quorum sensing Activities of Eugenol and Linalool From *Ocimum tenuiflorum* against *Pseudomonas aeruginosa* Biofilm, Lahiri, Dibyajit, Nag, Moupriya, *Journal of Applied Microbiology*, 2021
49. Artificial Neural Network and Response Surface Methodology-Mediated Optimization of Bacteriocin Production by *Rhizobium leguminosarum*, Lahiri, Dibyajit, Nag, Moupriya, *Iran J Sci Technol Trans Sci* (2021). <https://doi.org/10.1007/s40995-021-01157-6>
50. Heavy Metals in Health Issues and Microbes in Remediation: A Review, Mukherjee, Susmita, Paul, Sonali, *American Journal of Applied Biotechnology Research*. 2021. 2: 47-60

————— x —————

## Department of Basic Sciences & Humanities

51. Synthesis of Graphene Oxide from Hydrogenated Diamond Like Carbon and Protein Immobilization onto It: Characterization and Study of Practical Utility, Subhashis Bala, Reshmi Bose, Shaona Chatterjee, Sanjit Sarkar, Indranil Saha, Hari Shankar Biswas, Journal of Materials Science and Chemical Engineering(International)
52. ECOLOGICALINTERDISCIPLINARITY AND LITERATURE TAGORE: THE ECO-LITERARY ARTIST AND BEYOND -Ayanita Banerjee, INTERNATIONAL JOURNAL OF ENGLISH AND LITERATURE (IJEL)- VOL - 11, ISSUE - 1; EDITION: FEB-2021
53. Tagore's Visvobod Deconstructing 21st century Creative Violence, Ayanita Banerjee, Rupkatha Journal on Interdisciplinary Studies in Humanities Vol. 12, No. 5, 2020. 1-6
54. Re-Mapping Culture and Identity- Diasporic Theorisation and Dislocation Strain in the Selected Poems of Agha Shahid Ali - Ayanita Banerjee, The International Journal of English Learning & Teaching Skills. Vol-3.2. Jan 2021. Pg-2022-2032.ISSN- IJELTS [ISSN No. 2639-7412-Print], Online-2638-5546
55. A Psychological Lesson Intertwining Enchanting Transformations - A Psychological Lesson Intertwining Enchanting Transformations - Ayanita Banerjee, International Journal of Research and Analytical Reviews. ICI with the link-<https://ijrar.org>ISSN/ISBN-E-ISSN- 0975-2935 Vol – VII-Issue-II
56. Folk Literature -Reflections of our Own Identity - Indian Folk Life Ayanita Banerjee, .ICI with the link-<https://openfolklore.org/journals>ISSN/ISBN-E-ISSN-ISSN (P) 0972-6470 ISSN (L) 0972-6470 Vol –VII-Issue-V
57. Paradisiacal Imagination: A Re-thinking of Tagore's Visvobod Ayanita Banerjee in the 21st Century Research Journal of English. ICI with the link-SSN:2395-2636(P):2321 – 3108(E)ISSN/ISBN-E-ISSN- Vol – II-Issue-VII
58. Functionally significant metabolic differences between b and t lymphocyte lineages. Nabanita Das, Publication: 2020/10, International Journal: Immunology, Volume: 158, Issue: 2, Page: 104
59. Study of nontrivial magnetism in 3d-5d transition metal based double perovskites, Shreemoyee Ganguly and Sayantika Bhowal, Physical Review B, 101 85104 (2020)
60. Exact solutions of a damped harmonic oscillator in a time dependent noncommutative space, Manjari Dutta, Shreemoyee Ganguly, Sunandan Gangopadhyay, International Journal of Theoretical Physics, 3852 29 (2020) SCI
61. Binary Nanoalloy Clusters: A Case Study for FeCr Clusters., Shreemoyee Ganguly, American Journal of Physical Sciences and Applications, 6 1 (2020)
62. Hierarchical design of rGO-PEDOT-  $\delta$ -MnO<sub>2</sub> nanocomposite for supercapacitor, P. Sen, S. Rana and A. De, Journal of Electronic Materials 49 (2020) 763-772.International SCI Index Journal. (Print ISSN 0361-5235)
63. Effect of loading rate on crystallization of metallic glass supercooled liquids, E. Davoodi, M. Hasan, S. Rana and G. Kumar, The American Journal of Physical Sciences and Applications, 1 (2020) 18-21, The Smart Society Publication, (US: ISSN 2644 – 0792)
64. Development of graphene based nanostructures and its applications in food quality control and health care, Kar Gupta, A. Dutta, K. Dutta and S. Rana, World Journal of Engineering Research and Technology, 6 (2020) 141-160. An ISO 9001 : 2015 Certified International Journal (ISSN 2454 - 695X)
65. Oral andrographolide nanocrystals protect liver from paracetamol induced injury in mice. Basu Aalok, Gutti Sujay, Kundu Sonia, Das Aatrayee, Das Suvadra, Mukherjee Arup, Journal of Drug Delivery Science and Technology, 55, 101406, 2020. (impact factor 2.734). (International journal)



66. Lactoferrin Tethered Betulinic Acid Nanoparticles Promotes Rapid Delivery And Cell Death In Triple Negative Breast And Laryngeal Cancer Cells. Halder Asim, Jethwa Megha , Mukherjee Pritha , Ghosh Subarna , Das Suvadra , Helal Uddine A. B. M. , Mukherjee Arup , Chatterji Urmi and Roy Partha, *Artificial Cells, Nanomedicine and Biotechnology*, 48,(1), 1362-1371,2020
67. Mesoporous carbon nanospheres derived from agro-waste as novel antimicrobial agents against gram-negative bacteria, Roy Partha, Bhat Vinay S., Saha Sumana, Sengupta Dipanjan, Das Suvadra, Datta Sriparna & Hegde Gurumurthy, *Environmental Science and Pollution Research*, doi: 10.1007/s11356-020-11587-1, 2020
68. Flavonoid-decorated nano- gold for antimicrobial therapy against Gram-negative bacteria *Escherichia coli*, Suvadra Das, Tanay Pramanik , Megha Jethwa , Partha Roy, *Applied Biochemistry and Biotechnology*. doi: 10.1007/s12010-021-03543-7,2021 (impact factor 1.638)
69. Polyphenol capping on gold nanosurface modulates human serum albumin fibrillation. Aalok Basu, Sonia Kundu, Aatrayee Das, Chitra Basu, Sagar S Bhayye, Suvadra Das and Arup Mukherjee, *Materials Advances*,1.1142,2020
70. Diabetes associated delay in wound healing and strategies for its management, Megha Jethwa, Nagma Banjare, Tamal Sadhukhan, , and Suvadra Das, *American Journal of Physical Sciences and Application (AJPSA)* Vol -I, Issues 2, 2020
71. Thiocoumarins and Dithiocoumarins: Advances in Synthesis and Pharmacological Activity- D. Chaudhary, T. Pramanik and S. Santra, *Current Organic Chemistry*, 2020, 24(16), 1793-1814.
72. Garlic Catalyzed and Grindstone Assisted Solvent Free Green Synthesis of Pharmaceutically Important Schiff Bases, Tanay Pramanik, *Research Journal of Pharmacy and Technology* 2020, 13 (1), 152-156
73. A novel and green water softening technology using biodegradable materials- S. Lzaod, P. Bedi, D. Chowdhury, S. Santra and T. Pramanik, *Drug Invention Today* 2020, 14 (3), 232-237
74. RELATIONSHIP OF SELECTED PHYSIOLOGICAL VARIABLES WITH SWIMMING PERFORMANCE, Manas Banerjee, *International Journal Of Physiology, Nutrition And Physical Education*, Volume.5 Issue.1, Jan-Jun 2020 - Issn:2456-0057
75. INFLUENCE OF SEASONAL CHANGES ON PERFORMANCE OF SWIMMERS , Manas Banerjee *AMERICAN JOURNAL OF APPLIED MATHEMATICS AND COMPUTING - (AJAMC) VOLUME.1 ISSUE.3 - ISSN( Print):2691-783, ISSN( Online ): 2689-9957*
76. A New DNA sequencing alignment methodology using the Longest Common Subsequence technique, Chowdhury D., Sau, K, *American Journal of Applied Mathematics and Computing , Vol 1, Issue 3, 2020*
77. Walsh transforms of trace forms with three or more terms and some maximal Artin-Schreier curves -Sankhadip Roy, *Functiones et Approximatio Commentarii Mathematici*, 21-01-2021
78. Different method for counting the number of Quadratic functions with prescribed spectra - Sankhadip Roy, *American Journal of Applied Mathematics and Computing* 01-07-2020
79. Science in Scriptures Analysing the Presence of Modern Technology in Ancient Indian Mythology - Ankana Ghosh Dastidar, *ICELTS* 2020
80. Justice served or Justice denied - Ankana Ghosh Dastidar, *Decoding the absurd nuances of the Jurisprudence in Leo Tolstoy's selected short stories - ICELTS* 2020
81. Exploring Coping Styles & Present Mental Health Status of Final Year Undergraduate Students in Relation to their Psychological Capital amidst uncertainties of COVID Pandemic, Anindita Majumdar, Kriti Sarkar, Abhinita Ghosh, *International Journal of English Learning and Teaching Skills* (ISSN: 2639-7412 (Print) ISSN: 2638-5546 (Online), International Vol 3, No.2 1945-1962 2021

82. The Effect of Online Teaching and Learning in Primary School Kids — A Changed Education Scenario in 2020 India. Kriti Sarkar, Avishikta Chatterjee, Kumar Satyam, Anushka Paul, Rupnath Mallick, International Journal of English Learning and Teaching Skills (ISSN: 2639-7412 (Print) ISSN: 2638-5546 (Online), International Vol 3, No.2 2051-2061 2021
83. Information overload – Managing Cognition and Emotion in Work from Home – Documentation of Review based Findings, Kriti Sarkar, Shaina Sengupta, Pallabi Roy, International Journal of English Learning and Teaching Skills (ISSN: 2639-7412 (Print) ISSN: 2638-5546 (Online)
84. Nature, Freedom and Pedagogy-A Comparative Analysis of Rousseau and Tagore. Ayanita Banerjee, The Global Journal of Humanities and Social Sciences. (GSHSS Vol-XXI Issue IV, Version 1 15.05.2021 (May) Pgs-57-68. ISSN Online-2249-460X ISSN Print-0975-587X DOI\_10.17406/GJHSS)
85. A Novel, Eco-Friendly and Economical Process for Desalination of Water Using Waste Food Materials- Runjhun Tandon, Soumava Santraand, Tanay Pramanik, Oriental Journal of Chemistry. 2021, 37 (3), 524-530.

\_\_\_\_\_ × \_\_\_\_\_

## **Department of Electronics & Communication Engineering**

86. Half Mode Semi-Hexagonal SIW Antennas and Arrays for Cellular V2X Communication, Soumen Banerjee, Microsystem Technologies (Springer Nature), pp. 1-13, Jan. 2021
87. Deep learning based real-time Industrial framework for rotten and fresh fruit detection using semantic segmentation, Kyamelia Roy, Microsystem Technologies (Springer Nature), Jan. 2021.
88. Heterostructure Ge-Body pTFETs for Analog/RF Applications, Sayani Ghosh, IEEE Journal of the Electron Devices Society, vol. 8, pp. 1202-1209, 2020
89. Internet of Things for e-healthcare employing Telemedicine to treat COVID-19, Debanjana Ghosh, Piyali Mukherjee, International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), e-ISSN: 2319-8753, p-ISSN: 2320-6710, vol. 9, August 2020
90. Approach to reduce PAPR in Orthogonal Frequency Division Multiplexing Technique, Piyali Mukherjee, Turkish Journal of Computer and Mathematics Education, Vol.12 No.10, pp. 4480-4484, May 2021
91. Approach to design of optical microring resonator for biosensing with enhanced efficiency, Piyali Mukherjee, Microsystem Technologies (Springer Nature), pp. 1-9, Jan. 2021.
92. Low Profile Polarization-Insensitive Wide Stop-Band Frequency Selective Surface with Effective Electromagnetic Shielding, Priyanka Das, International Journal of RF and Microwave Computer Aided Engineering, Jan. 2021.
93. Hybrid FSS Phase Cancellation Structure Based Broadband Switchable RCS Reduction, Priyanka Das, International Journal of RF and Microwave Computer Aided Engineering, vol. 31, no. 3, Jan. 2021.
94. RCS Reduction of Microstrip Antenna using Split Square Loop Thin Absorber, Priyanka Das, IET Microwaves, Antennas & Propagation, vol. 14, no. 14, pp. 1771-1778, Nov. 2020

————— × —————

## Department of Computer Science & Engineering

95. High Performance Fault Tolerant Resource Scheduling in Computational Grid Environment, Sukalyan Goswami and Kuntal Mukherjee, International Journal of Web-based Learning & Teaching Technologies,2020,ISSN-1548-1093
96. Synthetic Minority Oversampling in addressing imbalanced Sarcasm Detection in Social Media, Arghasree Banerjee, Mayukh Bhattacharjee, Kushankur Ghosh, Sankhadeep Chatterjee, Multimedia Tools and Applications,2020, ISSN-1573-7721
97. Analysis of Rheological Properties of MWCNT/SiO<sub>2</sub> Hydraulic Oil Nanolubricants Using Regression and Artificial Neural Network, Abhisek Halder, Sankhadeep Chatterjee, Ankit Kotia, Niranjana Kumar, Subrata Kumar Ghosh, International Communications in Heat and Mass Transfer,2020,ISSN-0735-1933
98. A robust image encryption framework based on DNA computing and chaotic environment, Mousomi Roy, Shouvik Chakraborty, Kalyani Mali, Deepayan Roy, Sankhadeep Chatterjee, Microsystem Technologies,2021, ISSN-1432-1858
99. IoT-cloud based healthcare model for COVID-19 detection: an enhanced k-Nearest Neighbour classifier based approach, Rajendrani Mukherjee, Aurghyadip Kundu, Indrajit Mukherjee, Deepak Gupta, Prayag Tiwari, Ashish Khanna & Mohammad Shorfuzzaman, Computing,2021, ISSN-1436-5057
100. A Bi-stage Feature Selection Approach\_x000D\_ for COVID-19 Prediction using Chest CT images, Shibaprasad Sen, Soumyajit Saha, Somnath Chatterjee, Seyedali Mirjalili, Ram Sarkar, Applied Intelligence,2021, ISSN-1573-7497,DOI: <https://doi.org/10.1007/s10489-021-02292-8>
101. Information Retrieval from Microblogs During Disasters: In the Light of IRMiDis Task, Moumita Basu, Kripabandhu Ghosh, Saptarshi Ghosh, SN Computer Science, 1(1), p.61,2020.
102. A new DNA sequencing alignment using Longest Com-mon Subsequence Method, Debkumar Chowdhury, Sanjukta Mishra, American Journal of Applied Mathematics and Computing,2021,ISSN-2689-9957
103. Improving Spectrum Utilization in Elastic Optical Networks for Multicast Traffic Demands, Panchali Datta Choudhury, American Journal of Electronics & Communication,2021,ISSN-2690-2087
104. Indian Sign Language Classification (ISL) using Machine Learning, Subhalaxmi et. al., American Journal of Electronics & Communication, Vol. I (3),17-21, May,2021, [doi.org/10.15864/ajec.1304](https://doi.org/10.15864/ajec.1304)
105. Fake Note Detection using Machine Learning Techniques, Subhalaxmi et. al., American Journal of Electronics & Communication, Vol. I (3), 22-29, May,2021
106. Segmentation of text lines using multi-scale CNN from warped printed and handwritten document images, Arpita Dutta, Arpan Garai, Samit Biswas Amit Kumar Das, International Journal on Document Analysis and Recognition (IJDAR) , 2021, <https://doi.org/10.1007/s10032-021-00370-8>
107. Android Controlled Home Automation, Pankaj Kapoor, Suryadipta Sarkar, Dr.Sudipta Basu Pal, Kunal Mahato, American Journal of Electronics & Communication, Vol. I (3), 12-16,May 2021,[doi.org/10.15864/ajec.1303](https://doi.org/10.15864/ajec.1303)

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## Summary:

<b>Departments</b>	<b>International /National Journals</b>
BA	7
BSH	35
BioTech	26
CA	9
CSE	13
ECE	9
EE	6
LAW	2

**Publications in  
International / National  
Conferences  
(June 2020 to July 2021)**



## Department of Computer Application

1. Variable Selection in Genetic Algorithm Model with Logistic Regression for Prediction of Progression to Diseases, A. K. Chaudhuri and A. Das, IEEE International Conference for Innovation in Technology (INOCON), BANGLURU, 2020, pp. 1-6, doi: 10.1109/INOCON50539.2020.9298372
2. Identifying the association rule to determine the possibilities of Cardio Vascular Diseases(CVD) , Chaudhuri, A.K, Das, A., et al, Advances in Intelligent Systems and Computing, indexed in DBLP, Google Scholar, EI-Compendex, Mathematical Reviews, SCImago, (SCOPUS), ISSN: 2194-5357
3. Character Segmentation for Handwritten Bangla Words using Image Processing, Mitra, P., Bhattacharjee, K, Das, A. et al, 2nd International Conference on Ubiquitous and Emerging Concepts on Green Computing, Kolkata, 22-24th April 2021
4. Telemedicine, Bhattacharjee, K, Mitra, P., Das, A. et al, 2nd International Conference on Ubiquitous and Emerging Concepts on Green Computing, Kolkata, 22-24th April 2021 [BEST PAPER AWARD]
5. Analysis on the Status of Rent of Housing Industry, Hazra, M., Bhattacharya, B., Mitra, P., Bhattacharjee, K, Das, A. et al, 2nd International Conference on Ubiquitous and Emerging Concepts on Green Computing, Kolkata, 22-24th April 2021
6. Twitter Sentiment Analysis Using Naive Bayes and N-gram, Proc. of the 2nd International Conference on Ubiquitous and Emerging Concepts on Sensors and Transducers, UEMCOS 2020, UEM Kolkata, 16th - 18th October 2020
7. Analysis on the Status of Rent of Housing Industry”, in Proc. of the 2nd International Conference on Ubiquitous and Emerging Concepts on Green Computing, Madhulekha Hazra, Bikram Bhattacharya, Suryashis Sengupta, Rajesh Mandal et al, UEMGREEN 2021, UEM Kolkata, 22nd - 24th April 2021
8. Review on Vulnerabilities and Challenges on IoT Security Frameworks in Diversified Fields of Applications”, in Proc. of the 2nd International Conference on Ubiquitous and Emerging Concepts on Green Computing, Susmita Das, Papiya Ghosh, Priya Gorai, Sayani Maiti et al UEMGREEN 2021, UEM Kolkata, 22nd - 24th April 2021
9. Unmanned Aerial Vehicle (UAV) Inter-Communication Optimization Technique, Proc. of the 2nd International Conference on Ubiquitous and Emerging Concepts on Sensors and Transducers, Anoy Chowdhury, UEMCOS 2020, UEM Kolkata, 16th - 18th October 2020

————— × —————

**Department of Electrical Engineering**

10. Design of Master Slave flip flop in Quantum Dot Cellular Automata (QCA), IEEE 4th International online conference on Electronics, Materials Engineering & Nano-Technology (IEMENTech 2020), Ratna Chakrabarty, Niranjana Kumar Mandal, DOI: 10.1109/IEMENTech51367.2020.9270068, Date of Conference: 2-4 Oct. 2020, Date Added to IEEE Xplore: 30 November 2020

\_\_\_\_\_ × \_\_\_\_\_

## Department of Bio Technology

11. Role of plant secondary metabolites in combating pest induced stress in Brinjal (*Solanum melongena* L.). Debankita Dutta, Elija Ghosh, Indrani Bose, Sourish Bhattacharjee, BIOSPECTRUM 2020, the International Conference on Biotechnology and Biological Sciences is organized by Department of Biotechnology, University of Engineering & Management, Kolkata in collaboration with SMART Society, USA from 19th to 21st of November, 2020
12. Progeria- a rare genetic condition with accelerated aging process, Arunima Saha, Sohini Roy, Gargi Ghosh, Debshikha Dutta Roy, Snejuti Barua, BIOSPECTRUM 2020, the International Conference on Biotechnology and Biological Sciences is organized by Department of Biotechnology, University of Engineering & Management, Kolkata in collaboration with SMART Society, USA from 19th to 21st of November, 2020
13. Huntington's chorea – a rare neurodegenerative autosomal disease, Annapurna Jana, Shrirupa Dhar, Saikat Ghosh, BIOSPECTRUM 2020, the International Conference on Biotechnology and Biological Sciences is organized by Department of Biotechnology, University of Engineering & Management, Kolkata in collaboration with SMART Society, USA from 19th to 21st of November, 2020
14. RNAi technology and Possible Vaccines to Combat SARS CoV2, Annapurna Jana, Shrirupa Dhar, Saikat Ghosh, BIOSPECTRUM 2020, the International Conference on Biotechnology and Biological Sciences is organized by Department of Biotechnology, University of Engineering & Management, Kolkata in collaboration with SMART Society, USA from 19th to 21st of November, 2020

————— x —————

## **Department of Basic Sciences & Humanities**

15. A PERSPECTIVE OF YOGA AS AN IMMUNOLOGICAL TOOLS INTO COVID-19 AND PATHOGENIC INFECTIONS – A LITERATURE REVIEW, Nabanita Das, Yoga for Holistic Wellbeing. Organized by: Department of Physical Education and Sports Science in collaboration with IQAC and PBC Team Solution, Panskura Banamali College (Autonomous), Date:12th & 13th September 2020
16. THE IMPACT OF PHYSICAL ACTIVITY AS IMMUNOLOGICAL TOOLS INTO COVID-19 AND PATHOGENIC INFECTIONS: A LITERATURE REVIEW, Nabanita Das, Health and Fitness during Covid-19 And Holistic Approaches to Athletics, Organized by: Department of Physical Education, The University of Burdwan, Date:2nd& 3rd September 2020
17. Journey of a Bengali woman climber on the top of the world: a case study, Nabanita Das, International Conference on Physical Education, Yoga and Sports Sciences in 2020s Era. Conference: International, Date: 15/08/2020(part of celebration of 6th physical education week),Organized: State Institute of Physical Education for Women, Hastings house, Alipore, Kolkata
18. Study of aerobic performance of varsity level kho-kho player in relation to somatotype, Nabanita Das International Conference on Global Education, Physical Education and Sports, Research and Technology for Sustainable Development., Department of Physical Education Seva Bharati Mahavidyalaya (15/09/2020)
19. THE IMPACT OF DIGITAL COMMUNICATION TECHNOLOGY AS EDUCATIONAL TOOLS INTO PHYSICAL EDUCATION PROGRAMS: A LITERATURE REVIEW, Nabanita Das International Webinar on Modern Technological and Nutritional Needs in Sports and Healthy Lifestyle , Organized by: Department of Physical Education, Union Christian Training College In Collaboration with: IQAC, Union Christian Training College, Date:25th& 26th August 2020

————— × —————

## **Department of Electronics & Communication Engineering**

20. SIW based cavity-backed slot antenna for WiMAX applications, Soumen Banerjee, 6th International Conference on Emerging Applications of Information Technology (EAIT-2020), Feb 25-27, 2021
21. Implementation of Face Recognition Algorithm on a Mobile Single Board Computer for IoT Applications, Soumen Banerjee, 17th IEEE India Council International Conference (Indicon-2020), Dec 2020
22. Reconfigurable All Dielectric 3D FSS Filter, Priyanka Das, International Symposium on Antennas & Propagation (APSYM 2020), Dec 2020
23. Multiband Reflection and Transmission mode Linear to Circular Polarizer integrated Microstrip Patch Antenna, Priyanka Das, International Symposium on Antennas & Propagation (APSYM 2020), Dec 2020
24. Poster Session on RF, Microwave and Terahertz Devices, Priyanka Das, International Conference on Emerging Electronics, 26-28 Nov. 2020
25. A Novel Design of Microstrip Monopole Antenna for UWB Applications, Priyanka Das, International Conference on Electronics, Materials Engineering & Nano-Technology (IEMTech), 2-4 Oct. 2020
26. Design And Analysis Of a Circularly Polarized Antenna with an arrow shaped slot, Priyanka Das, International Conference on Electronics, Materials Engineering & Nano-Technology (IEMTech), 2-4 Oct. 2020
27. An Illustration of a novel All Dielectric 3D FSS based Band-Pass Filter, Priyanka Das, 5th IEEE International Conference on Computing, Communication and Automation (ICCCA 2020), 30-31 Oct. 2020
28. A novel design of FSS based absorber integrated microstrip antenna, Priyanka Das, International Conference on Electrical & Electronics Engineering (ICEEE 2021), 2-3 Jan. 2021
29. An All-Dielectric FSS Inspired Reconfigurable Band-stop Filter, Priyanka Das, IEEE International Conference on Advent Trends in Multidisciplinary Research and Innovation (ICATMRI 2020), 30 Dec. 2020

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## Department of Computer Science & Engineering

30. A Novel Technique of Image Steganography, Srilekha Mukherjee, in International Conference on Ubiquitous Energy Management for Green Environment, UEMGREEN, 2021
31. Heart Disease Detection Using Feature Selection based KNN Classifier, Rajendrani Mukherjee, Srestha Sadhu and Aurghyadip Kundu, in International Conference on Data Analytics & Management an Indo-European Conference(ICDAM-2021) ,Springer SCOPUS
32. A Smart Parking-lot Occupancy Model in 5G V2V and V2I Wireless Communication, Bipasha Mukhopadhyay , PIMRC, 2021
33. A Model to Maintain Social Distance in Public Vehicles using 5G V2I and V2P Communication, Bipasha Mukhopadhyay , TENSYP 2021
34. Identification of the Dawn or Dusk Ragas, Debjyoti Basu, Himadri Mukherjee, Shibaprasad Sen and Kaushik Roy, in International Conference on Advanced Computing and Applications 2021.
35. Utilising Online Social Media for Coordinating Post-Disaster Relief in Urban Regions, Amitrajit Bose, Sivangi Tandon, Moumita Basu, Saptarshi Ghosh, Workshop on Urban Complex Systems, co-located with Conference on Complex Systems, Virtual Event, December 2020
36. Dual-Mode Enabled IoT Based Smart Balcony Gardening In Urban Area, Subhalaxmi Chakraborty, International Conference on Computational Intelligence, Data Science and Cloud Computing (IEM-ICDC), 2020
37. SPAM DETECTION USING THRESHOLD METHOD ON WHATSAPP IMAGE DATA, Arunabha Tarafdar, 2020 International Conference on Opto-Electronics and Applied Optics (Optronix)June,2020
38. A quality assessment of PV Metrological technique--A case study with Poly-Si PV Modules, Sudipta Basu Pal, KD Bhattacharya, D Mukherjee, D Paul, at IEST, Kolkata India,2020 47th IEEE Photovoltaic Specialists Conference (PVSC), DOI: 10.1109/PVSC45281.2020.9300399
39. Performance Analysis of different technology PV Modules in Eastern Indian climatic conditions- An Approach based on Solar Geometry, Sudipta. Basu Pal; K. Das Bhattacharya; D. Mukherjee, Michael Faraday IET International Summit 2020 (MFIIS 2020), 2021 p. 191 – 196, IET Digital Library
40. Edge based Human Activity Recognition System for Smart Healthcare, Anirban Mukherjee, Amitrajit Bose, Debdeep Paul Chaudhuri, Akash Kumar, Aiswarya Chatterjee, Saurav Kumar Ray, Anay Ghosh,Published in UEMCOS 2020
41. Software Fault Prediction: Past and Present, Rajendrani Mukherjee, Abhilash kumar Baid, UEMGREEN April, 2021
42. Text/non-text scene image classification using deep ensemble network, Mridul Ghosh, Somnath Chatterjee, Himadri Mukherjee, Shibaprasad Sen and Md Obaidullah Sk, in International Conference on Advanced Computing and Applications 2021
43. Covid-19 - Analysis and Prediction - A case study using Machine learning, Abhishek Sharma, Digbijoy Dasgupta, Shreya Bose, Udayan Misra, Ishita Pahari, Raktim Karmakar, Sudipta Basu Pal, CIIR-2021
44. A comparative study based on Long Short Term Memory networks for assessing Photovoltaic Power, Debashis Majumdar, Mayukh Bhattacharjee, Sudipta Basu Pal, Sankhadeep Chatterjee, Rajiv Ganguly, CIPR 2021
45. Comparative Reliability Analysis of PV Modules under tropical conditions, D. Majumdar, Sudipta Basu Pal and R. Ganguly, 2021 Innovations in Energy Management and Renewable Resources(52042), Kolkata, India, 2021, pp. 1-5, doi: 10.1109/IEMRE52042.2021.9386742

46. Applications of Blockchain Technology in Financial & Personal Data Security, Anay Ghosh, Faizan Anwar, Arya Sarkar, Surya Sarkar, Sarthak Bose, Sayantan Aditya, Debanjan Saha, Published in UEMGREEN 2021
47. Blockchain-Based Voting System, Anay Ghosh, Arijit Karmakar, Kushal Khandelwal, Manojit Mandal, Pramiti Das, Partha Pratim Ray, Sagnik Bose, Published in UEMGREEN 2021
48. Brain Tumor Prediction and Detection with Comparison MRI VS EEG Signal using Modified Clustering Technique, Sukanya Roy, Ankita Hazra, Srijana Dasgupta, Poulami Majumder, Abhijit Gupta, Aditi Sinha, Debjani Chakraborty, UEMGREEN 2021
49. A study on machine learning techniques for brain signal analysis for classification of brain waves, Sukanya Roy, Anamika Dey, Bijoy Kumar Mondal, IndiaCom2021 (Scopus)
50. Self-Driving Car in Virtual Simulation: A Non-AI Approach, Debkumar Chowdhury, and Bipasha Mukhopadhyay, Sujoy Paul, Sreejit Bagchi, and Trisha Das, Springer, 2nd International Conference on Emerging Technologies in Data Mining and Information Security, Kolkata, India, 2020
51. Robust and Atomic Technique for Edge Detection to identify edges present in digital image using DSCTHS Method, Debkumar Chowdhury, Sujoy Paul, Sreejit Bagchi, Hazim Ahmed, Trisha Das, Chinmoy Mandal, and Sanjukta Mishra, 6th International Conference on Opto-Electronics and Applied Optics (OPTRONIX-2020), Kolkata, India, 2020
52. Oversampling using Fuzzy Rough Set Theory in Imbalanced Neural based Diabetic patient Readmission Prediction: A hybrid approach, Kushankur Ghosh, Arghasree Banerjee, Sankhadeep Chatterjee, Mayukh Bhattacharjee, Arya Sarkar, International Conference on Computer Communication and Informatics (ICCCI -2021), IEEE
53. FOFO: Fused Oversampling Framework by addressing Outliers”, 22 Arghasree Banerjee, Kushankur Ghosh, Sankhadeep Chatterjee, Diptaraj Sen, 2021 International Conference on Emerging Smart Computing and Infor-matics (ESCI), IEEE
54. Effects of Class Imbalance Problem in Convolutional Neural Network based Image Classification, Arghasree Banerjee, Kushankur Ghosh, Arya Sarkar, Mayukh Bhattacharjee, Sankhadeep Chatterjee, OPTRONIX-2020, Springer
55. Performance Improvement of Convolutional Neural Network using Random Under Sampling, Kushankur Ghosh, Arya Sarkar, Arghasree Banerjee, Sankhadeep Chatterjee, OPTRONIX-2020, Springer
56. Multilabel Sentiment Prediction by addressing Imbalanced Class Problem using Oversampling, Mayukh Bhattacharjee, Kushankur Ghosh, Arghasree Banerjee, Sankhadeep Chatterjee, OPTRONIX-2020, Springer
57. Image Segmentation based on Galactic Swarm Optimization, Shouvik Chakraborty, Kalyani Mali, Arghasree Banerjee, Mayukh Bhattacharjee, Sankhadeep Chatterjee, OPTRONIX-2020, Springer
58. A Biomedical Image Segmentation Approach using Darwinian Particle Swarm Optimization and Thresholding, Shouvik Chakraborty, Kalyani Mali, Kushankur Ghosh, Arya Sarkar, Sankhadeep Chatterjee, OPTRONIX-2020, Springer
59. An Image Security Method based on Low Dimensional Chaotic Environment and DNA Encoding, Mousomi Roy, Shouvik Chakraborty, Kalyani Mali, Deepayan Roy, Sankhadeep Chatterjee, OPTRONIX-2020, Springer
60. Statistical Analysis & Categorization for Tweets during Natural Disaster using Classification and Ranking Approach, Sukanya Roy, Arnab Bhowmik; Suvarup Ghosh; Bipasha Roy, Published in: 2020 International Conference for Emerging Technology (INCET), IEEE (SCOPUS), DOI: 10.1109/INCET49848.2020.9154122
61. Utilising Social Media for Post-Disaster Resource Allocation, Moumita Basu, Sipra Das Bit, Saptarshi Ghosh, In ACM CODS-COMAD, Young Researchers' Symposium, pp. 440, 2021

62. Predictive Analysis & Classification of Diseases in Organs using Modified-C Clustering, Sukanya Roy; Arnab Bhowmik; Suvarup Ghosh; Bipasha Roy, Technique 2020 7th International Conference on Computing for Sustainable Global Development (INDIACom) (SCOPUS), IEEE, 2020, DOI: 10.23919/INDIACom49435.2020.9083717
63. Pixel Wise Image Fusion by using Quantization Table for Data Security, Sukanya Roy; Bipasha Roy; Arnab Bhowmik; Koyel Dey; Rudrangshu Dutta; Souvik Biswas; Pinaki Bhowmick; Suvarup Ghosh Published in: 2020, 7th International Conference on Computing for Sustainable Global Development (INDIACom) (SCOPUS), IEEE. DOI: 10.23919/INDIACom49435.2020.908369

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## Summary:

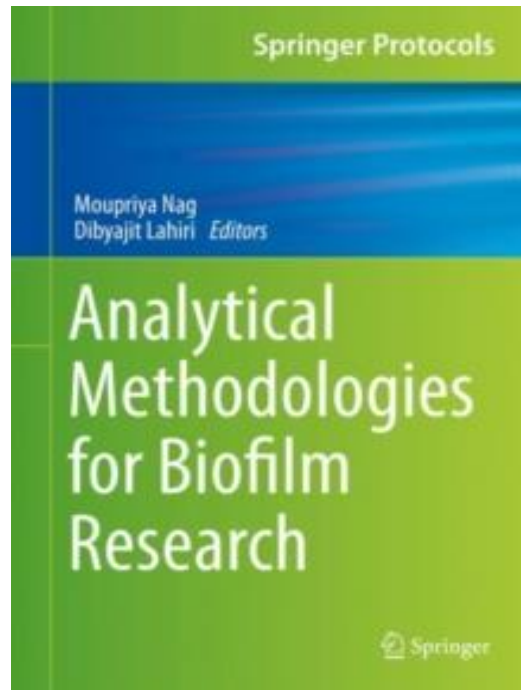
<b>Departments</b>	<b>International /National Conferences</b>
BSH	5
BioTech	4
CA	9
CSE	34
ECE	10
EE	1

**Books  
&  
Book Chapters  
(June 2020 to July 2021)**

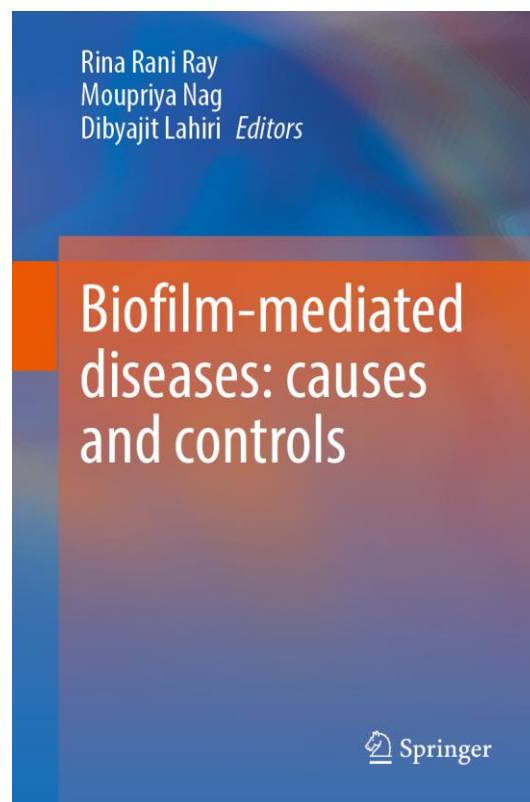
## Books

### Department of Bio Technology

1. Analytical Methodologies for Biofilm Research by Moupriya Nag and Dibyajit Lahiri; ISBN No. 978-1-0716-1377-1 July, 2021.

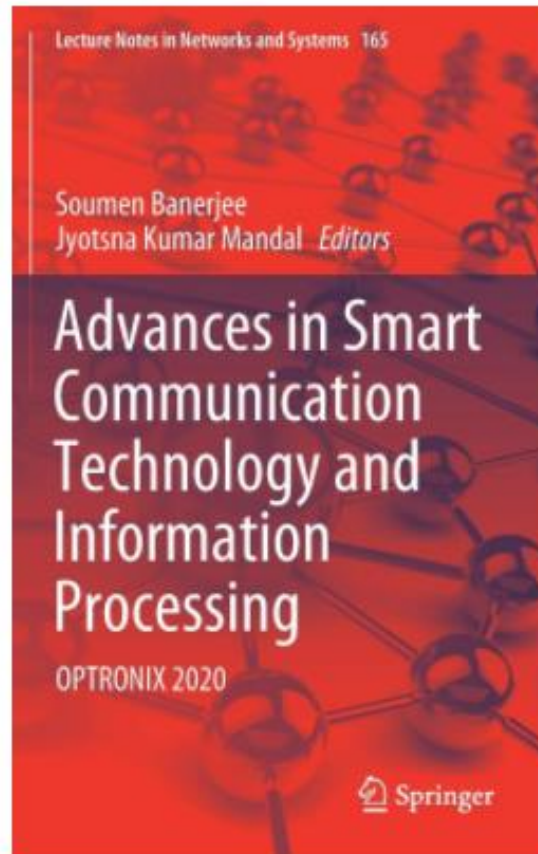


2. Biofilm-mediated diseases: causes and controls by Rina Rani Roy, Moupriya Nag and Dibyajit Lahiri , Springer, 2021.



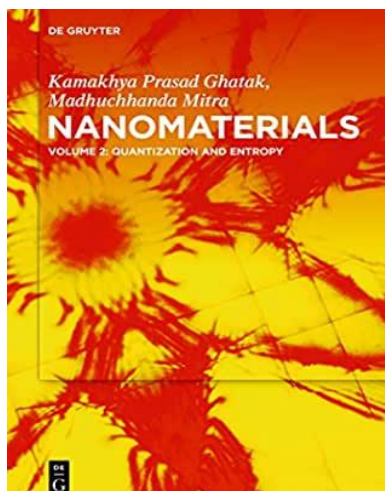
**Department of Electronics & Communication Engineering**

3. Advances in Smart Communication Technology and Information Processing by Dr. Soumen Banerjee and Prof. Jyotsna Kumar Mandal, Springer, 2021.

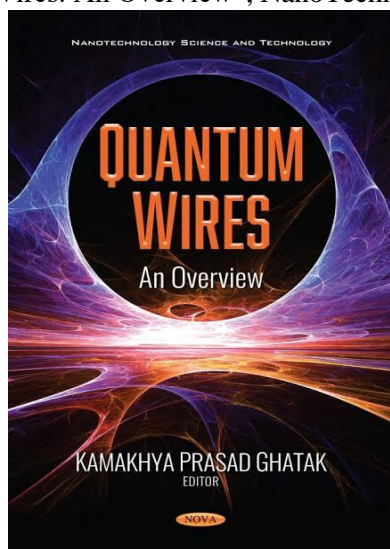


## Department of Basic Science & Humanities

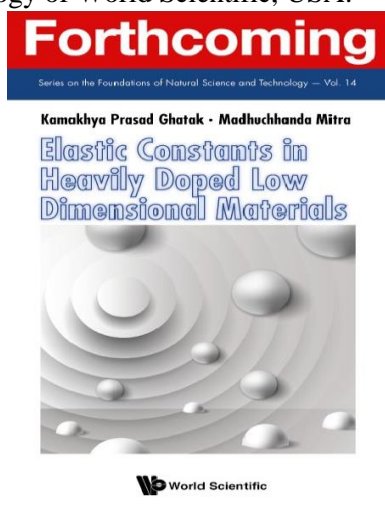
4. Prof. K. P. Ghatak, “Quantization and Entropy: Volume 2” in the series of NanoMaterials of De Gruyter, Germany.



5. Prof. K. P. Ghatak, “Quantum Wires: An Overview”, NanoTechnology Series of Nova, USA.

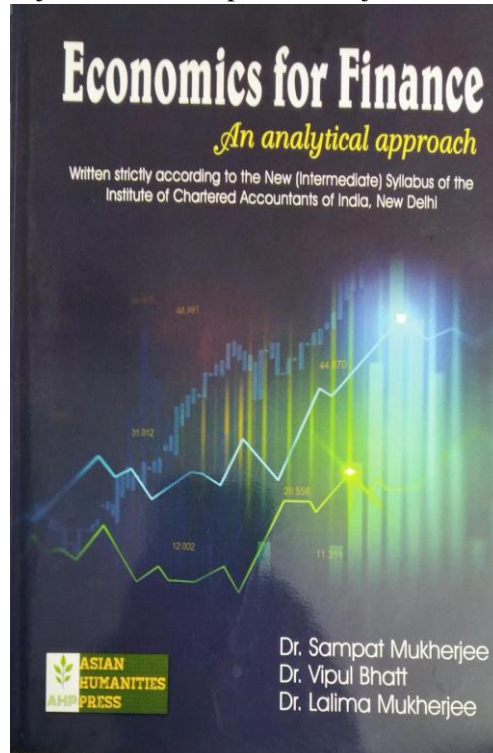


6. Prof. K. P. Ghatak, “Elastic Constants in Heavily Doped Low Dimensional Materials”, Foundations of Natural Science and Technology of World Scientific, USA.

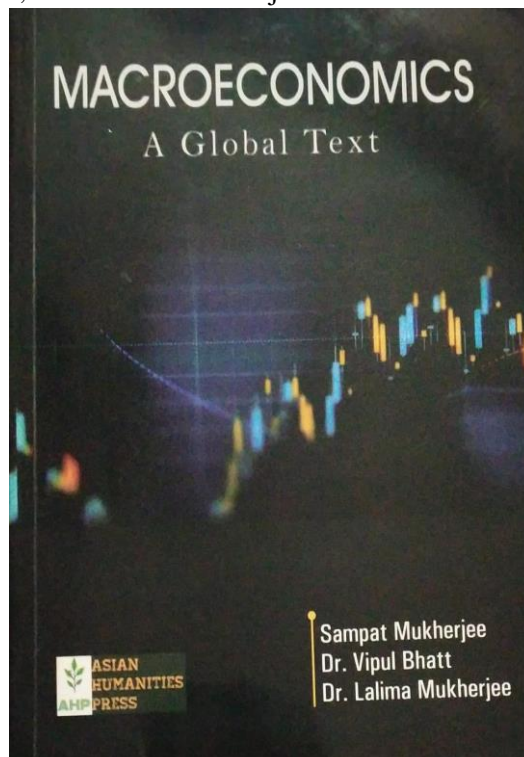


**Department of Business Administration**

7. Economics for Finance –An Analytical Approach, published by Asian Humanities Press in Oct.2020., Dr. Lalima Mukherjee & Prof. Sampat Mukherjee.



8. Macroeconomics-A Global text published by Asian Humanities Press in Jan 2021, Prof. Sampat Mukherjee, Dr. Vipul Bhatt, Dr. Lalima Mukherjee.



## Summary:

Departments	Books
BA	2
BSH	3
BioTech	2
ECE	1

## Book Chapter details

### Department of Computer Application

1. Flying Ad-Hoc Network (FANET): New Era of Wireless Sensor Network (WSN), Anoy Chowdhury, Chapter 5, Book Name: Computer & Information Systems into Next Frontier: The Emergence Publisher Name: New Delhi Publishers, ISBN NO:9789388879590
2. Analysis of Human Emotions based data using MIOT Technique, Chapter 13, Book Name: Medical Internet of Things Techniques, Practices and Applications, Publisher Name: CRC Press, Taylor & Francis
3. Demand of Internet Services in Infrastructure-as-a-Service (IaaS) to an IoT-Cloud Application Move, Sinha. S, Das, A, Ghosh. A, book entitled 'Advances in Applications of Computational Intelligence and the Internet of Things (IoT)', Apple Academic Press - CRC Press and Taylor & Francis , ISBN: 9781771889698
4. Blended IoT enabled learning approach to Raise the GER of Female pupils: A Study using Clustering Technique, Das. A, Dhawa. S.K, Banerjee. K, Das. A, book entitled 'Advances in Applications of Computational Intelligence and the Internet of Things (IoT)', Apple Academic Press - CRC Press and Taylor & Francis , ISBN: 9781771889698

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**Department of Business Administration**

5. Issues of Development, Vol – I, titled “Poverty, Income Distribution and Religious Conflict in Independent India”. Publisher Name: Paschimbanga Anchalik Itihash O Loksanskriti Charcha Kendra. ISBN No: 978-93-88207-32-4 (Paper Back) ; 978-93-88207-33-1 (E-Book)
6. “Professional Education and NEP 2020” in “National Education Policy 2020 – Paths and Destination”.

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## **Department of LAW**

7. CONSTITUTIONALITY OF RIGHT TO INTERNET AS PART OF RIGHT TO EDUCATION'. , SHRABANA CHATTOPADHYAY, edited by Hon'ble Justice A.K. Sikri and Prof. Dr. N.K. Chakrabarti bearing ISBN No. 978-81-947778-5-4 on February, 2021
8. PERMISSIBILITY OF SURROGACY IN ISLAMIC LAW, Islam & Contemporary Legal Issues in India, SHRABANA CHATTOPADHYAY edited by Zuabir Ahmed & Faizanur Rahman bearing ISBN No. 978-81-950122-7-5 on March, 2021
9. Brilllopedia-An anthology of articles: June 2021, CHAPTER- PROTECTION OF HUMAN RIGHTS IN INDIAN CONSTITUTION, MEHENDI MAZUMDAR

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## Department of Bio Technology

10. Fungi in bioremediation of soil organic pollutants. Fungi Bio-prospects in Sustainable Agriculture, Environment and Nano-technology, Prof. Dibyajit Lahiri, Dr. Moupriya Nag-Vol2, 2020
11. Bioreactor Mediated Bacteriocin Production And Its Application At Food Processing Industries. Prof. D. Lahiri, Dr. M. Nag, Recent Development in Food Processing Industry (IEI), 2020
12. Green synthesis of Nanoparticles and their applications in the area of bioenergy and biofuel production. Nanomaterials - Applications in Biofuels and Bioenergy Production Systems(Elsevier), Prof. D. Lahiri, Dr. M. Nag,195-219, 2021, ISBN: 9780128224014, doi.org/10.1016/B978-0-12-822401-4.00017-9
13. Phyto microbiome: Its components, composition and role in maintaining plant homeostasis Phytomicrobiome Interactions and Sustainable Agriculture (Wiley) Prof. D. Lahiri, Dr. M. Nag, ISBN: 978-1-119-64462-0, 2021
14. Bacteriogenic silver nanoparticles: Mechanisms and applications, Nanobiotechnology: Microbes and plant assisted synthesis of nanoparticles, mechanisms and applications (Elsevier),Prof. D. Lahiri, Dr. M. Nag, 61-74, 2021, ISBN: 9780128228784, doi.org/10.1016/B978-0-12-822878-4.00004-3
15. Mycosynthesis of silver nanoparticles: Mechanism and applications, Nanobiotechnology: Microbes and plant assisted synthesis of nanoparticles, mechanisms and applications (Elsevier) Prof. D. Lahiri, Dr. M. Nag, 91-104, 2021, ISBN: 9780128228784, doi.org/10.1016/B978-0-12-822878-4.00006-7
16. Industrial applications of photocatalytic methods such as textile pharmaceutical industries, tannery, and craft ,Photocatalytic degradation of dyes (Elsevier) 2020, ISBN: 9780128238769
17. Plant Communication with Associated Its Components, composition and Role in Maintaining Plant Homeostasis, Phytomicrobiome Interactions and Sustainable Agriculture, Prof. D. Lahiri, Dr. M. Nag, Wiley (ISBN:9781119644620 , <https://doi.org/10.1002/9781119644798.ch7>), 2020
18. Quorum Sensing. In: Ray R.R., Nag M., Lahiri D. (eds) Biofilm-Mediated Diseases: Causes and Controls. Springer, Singapore. [https://doi.org/10.1007/978-981-16-0745-5\\_2](https://doi.org/10.1007/978-981-16-0745-5_2)
19. Introduction to Bacterial Biofilm and Acute Infections. In: Ray R.R., Nag M., Lahiri D. (eds) Biofilm-Mediated Diseases: Causes and Controls. Springer, Singapore. [https://doi.org/10.1007/978-981-16-0745-5\\_1](https://doi.org/10.1007/978-981-16-0745-5_1)
20. Biofilm and Antimicrobial Resistance. In: Ray R.R., Nag M., Lahiri D. (eds) Biofilm-Mediated Diseases: Causes and Controls. Springer, Singapore. doi.org/10.1007/978-981-16-0745-5\_8
21. Biofilms and Acute and Chronic Infections, In: Ray R.R., Nag M., Lahiri D. (eds) Biofilm-Mediated Diseases: Causes and Controls. Springer, Singapore. [https://doi.org/10.1007/978-981-16-0745-5\\_1](https://doi.org/10.1007/978-981-16-0745-5_1)
22. Biofilm on Medical Appliances In: Ray R.R., Nag M., Lahiri D. (eds) Biofilm-Mediated Diseases: Causes and Controls. Springer, Singapore. [https://doi.org/10.1007/978-981-16-0745-5\\_1](https://doi.org/10.1007/978-981-16-0745-5_1)
23. Biofilm-associated metal Bioremediation, Biotechnology for Sustainable Environment (Springer), Prof. Dibyajit Lahiri, Dr. Moupriya Nag, [https://doi.org/10.1007/978-981-16-1955-7\\_8](https://doi.org/10.1007/978-981-16-1955-7_8)
24. Role of Metallothionein and Phytochelatin in Combating Abiotic Stress Imparted by Copper-Induced Toxicity in Brinjal (Solanum melongena). Dr. Pratik Talukder, Advances in Bioprocess Engineering and Technology, Springer, Page no: 349-358
25. Polyamines, Metallothioneins and Phytochelatins - Natural Defence of plants to mitigate heavy metals. Studies in Natural Products Chemistry, Dr. Pratik Talukder 69: : 227-261, 2021

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## Department of Electronics & Communication Engineering

26. CPW Wide-band Bandpass Filter using Combination of Series Open and Folded Shunt Short Stubs, Soumen Banerjee, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)
27. A Dielectric Resonator MIMO Antenna for Intelligent Transportation Systems Applications, Soumen Banerjee, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)
28. Semi-Hexagonal Half Mode SIW Antennas and Arrays for Vehicular Communication Systems, Soumen Banerjee, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)
29. Performance Improvement of Artificial Neural Networks by Addressing Class Overlapping Problem, Soumen Banerjee, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)
30. Transfer Learning Coupled Convolution Neural Networks in Detecting Retinal Diseases Using OCT Images, Soumen Banerjee, Advances in Intelligent Systems and Computing, 2020, Springer, Singapore
31. Studies on Al and Mg co-doped ZnO thin films grown by Sol-gel technique, Arpita Das, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)
32. Classification Of Citrus Fruits And Prediction Of Their Largest Producer based on Deep Learning Architectures, Kyamelia Roy, Advances in Smart Comm. Technology and Information Processing Springer – Nature, 2021. (Book Series – LNSS)
33. Unsupervised Machine Learning Algorithm Based Rotten Fruit Segmentation, Kyamelia Roy, Advances in Smart Comm. Technology and Information Processing ,Springer – Nature, 2021. (Book Series – LNSS)
34. Capsule Neural Network Architecture Based Multi-Class Fruit Image Classification, Kyamelia Roy, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)
35. Transfer Learning Coupled Convolution Neural Networks in Detecting Retinal Diseases Using OCT Images, Kyamelia Roy, Advances in Intelligent Systems and Computing, 2020, Springer, Singapore
36. Ultra-Wide Band Planar Inverted F Antenna Design, Priyanka Das, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)
37. A Novel Design of Circularly Polarized Antenna with Asymmetric Slots, Priyanka Das, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)
38. Novel Design of a Wideband Microstrip Antenna for 5G Applications, Priyanka Das, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)
39. A Novel Design of FSS based absorber integrated microstrip antenna, Priyanka Das, Lect. Notes Electrical Eng., Vol. 756, Innovations in Electrical and Electronic Engineering, Chapter 38.
40. Design of a Microring Resonator having high sensitivity for Biosensing Applications, Piyali Mukherjee, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)

41. Dual- Axis Solar Tracker Without Microcontroller, Sohom Chakraborty, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)
42. Studies on Al and Mg co-doped ZnO thin films grown by Sol-gel technique, Sohom Chakraborty, Advances in Smart Comm. Technology and Information Processing, Springer – Nature, 2021. (Book Series – LNSS)

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## Department of Computer Science & Engineering

43. Green Computing and Predictive Analysis for Healthcare, SUKANYA ROY, KOYEL DEY, RUDRANGSHU DUTTA, ARNAB BHOWMIK, PRITAAM DUTTA, under CRC Press, Taylor and Francis group, London
44. Review and Comparison of Face Detection Techniques, SUDIPTO KUMAR MONDAL, Series Title: Advs in Intelligent Syst., Computing, Volume Number:1065, Book Title: Proceedings of International Ethical Hacking Conference 2019, Book Subtitle: eHaCON 2019, Kolkata, India, ISBN:978-981-15-0360-3
45. An Optimized Intelligent Dermatologic Disease Classification Framework Based on IoT, Shouvik Chakraborty, Sankhadeep Chatterjee, Kalyani Mali, Intelligent Computing: Image Processing Based Applications, Springer, 2020
46. Transfer Learning Coupled Convolution Neural Networks in Detecting Retinal Diseases Using OCT Images, Kyamelia Roy, Sheli Sinha Chaudhuri, Probhakar Roy, Sankhadeep Chatterjee, Soumen Banerjee, Intelligent Computing: Image Processing Based Applications, Springer, 2020
47. Identification of Medical Disorders in Eye and Biometric Authentication. Analysis with Iris Retina Scan using Machine Learning, Sukanya Roy, Pritam Dutta, Arnab Bhowmik, Bipasha Roy, Kumar Sourav, Lovely Kumari, Book Chapter, Book:- Biotechnology and Biological Sciences, Edition-1st, Edition Imprint -CRC Press,, eBook ISBN9781003001614
48. Utilizing Online Social Media for coordinating post-disaster relief in Indian cities, Moumita Basu, Saptarshi Ghosh, Arnab Jana, Taylor and Francis Group, Advances in Urban Planning in Developing Nations. Routledge India, 2021. 199-210
49. A Framework for Emergency Remote Care and Monitoring Using Internet of Things, Varsha Poddar, CRC Press, 2020
50. Identification Of Probable Stages Of Alzheimer's Disease And Its Probability Of Occurrence, SUKANYA ROY, KOYEL DEY, RUDRANGSHU DUTTA, ARNAB BHOWMIK, PRITAAM DUTTA, Green Computing and Predictive Analysis for Healthcare, under CRC Press, Taylor and Francis group
51. Spam Detection Using Threshold Method on Whatsapp Image Data., Arunabha Tarafdar et.al. Advances in Smart Communication Technology and Information Processing: OPTRONIX 2020. Springer Singapore, 2021
52. Robust and Atomic Technique for Edge Detection to Identify Edges Present in Digital Image Using DSCTHS Method, Debkumar Chowdhury et al., Advances in Smart Communication Technology and Information Processing: OPTRONIX 2020. Springer Singapore, 2021
53. Steganography: Camouflaging Sensitive and Vulnerable data, Srilekha Mukherjee, Goutam Sanyal, Artificial Intelligence for a Sustainable Industry (AISI) 4.0, Springer, 2021
54. AI Based Voice Assisted Notebook, Sukanya Roy, Hrishab Dey, Souvik Paul, Priyesh Kashyap, Sourav Dam, Saahil Kumar Shaw, Narayan Chandra Maity, The E - Book of UEMCOS2020, Springer Publication, 16th to 18th October 2020
55. Brain tissue segmentation using Modified Fuzzy C-Means Clustering, Sukanya Roy, Nilesh Dutta, Siddhartha Ghosh, Samapti Kundu, Tama Rani Saha, BIOSPECTRUM 2018, selected for the book titled - Contemporary Medical Biotechnology Research for Human Health. in 2021 in Springer and Elsevier Publication.
56. Tumor Detection Using Spatial Hybrid Clustering(SHCM) from Brain MRI Scans, Sukanya Roy, Arunabha Tarafdar, Anik Bhaumik,, Arka Roy, Prashant, BIOSPECTRUM 2018, selected for the book titled - Contemporary Medical Biotechnology Research for Human Health, in 2021 in Springer and Elsevier Publication.

57. Dual-Mode Enabled IoT-Based Smart Balcony Gardening in Urban Area, Subhalaxmi Chakraborty, Abhinav, Proceedings of International Conference on Computational Intelligence, Data Science and Cloud Computing. Lecture Notes on Data Engineering and Communications Technologies, vol. 62, pp. 695-704, Springer, Singapore.(Scopus Indexed),2021, [https://doi.org/10.1007/978-981-33-4968-1\\_54](https://doi.org/10.1007/978-981-33-4968-1_54)

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## Department of Basic Science & Humanities

58. Ayanita Banerjee Interpreting Agha Shahid Ali- Quest for National Longings and a Search for Identity, Indian Diaspora, Culture and Literature, ISBN-9788194925101
59. Ayanita Banerjee Re-ta/(el)/ling Folk Tales-The Worded Tapestry , Novel Research Anthology on Literature, Feminism & Social Studies. - ISBN-978-93-90146-06-2
60. Ayanita Banerjee Re-Thinking Tagore's Visvobod in the 21st Century, Advance Theoretical Linguistics & Literature - ISBN- 978-93-90146-06-21
61. Tanay Pramanik Green Chemical Technology for Industrial Application; pp-140-145; Chapter-16; Industrial People Management, Volume-IV, 1st Edition, 2020, ISBN: 978-81-948131-0-1
62. Ayanita Banerjee Tagore's Jibansmriti (My Reminiscences)-: An Ecocritical Perspective of Natural Freedom (Eco-aesthetics and World Literature. ISBN- 9781639203550, Notion Press, New Delhi, 2021)
63. Ayanita Banerjee Interpreting Agha Shahid Ali- Quest for National Longings and a Search for Identity (Indian Diaspora, Culture and Literature, ISBN-9788194925101-2021)

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## Summary:

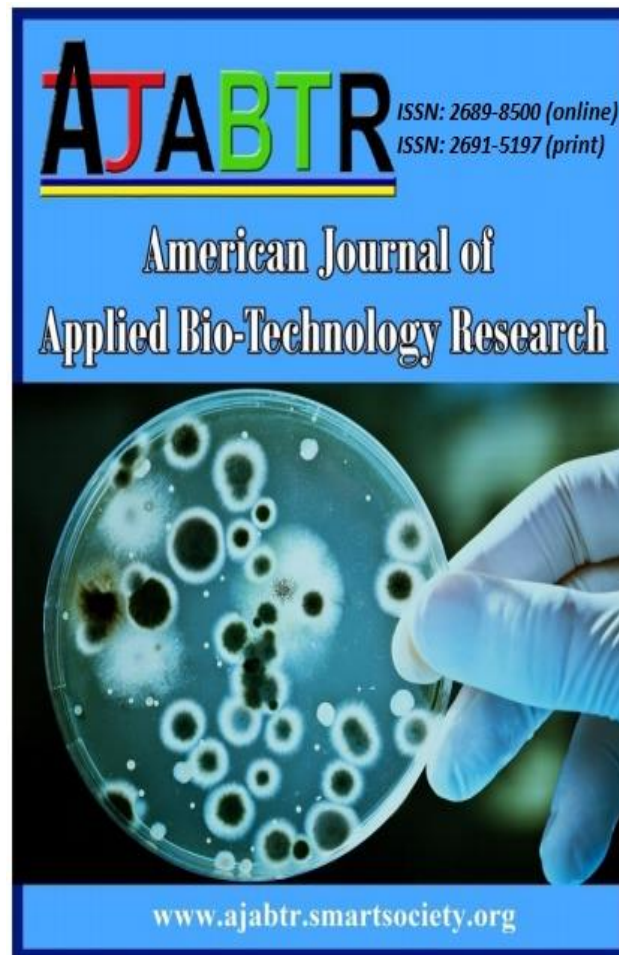
Departments	Book Chapters
BA	2
BSH	6
BioTech	16
CA	4
CSE	15
ECE	17
LAW	3

# **Departmental Journals & Magazines**

## Departmental Journals

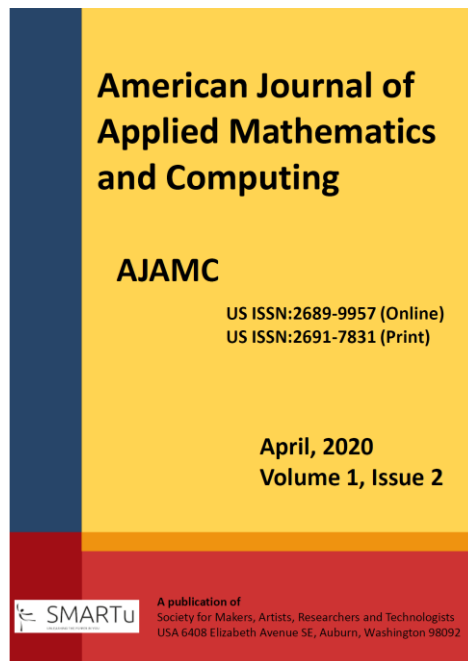
### Department of Bio Technology

1. American Journal of Applied Bio-Technology Research (AJABTR), International Journal, published quarterly.

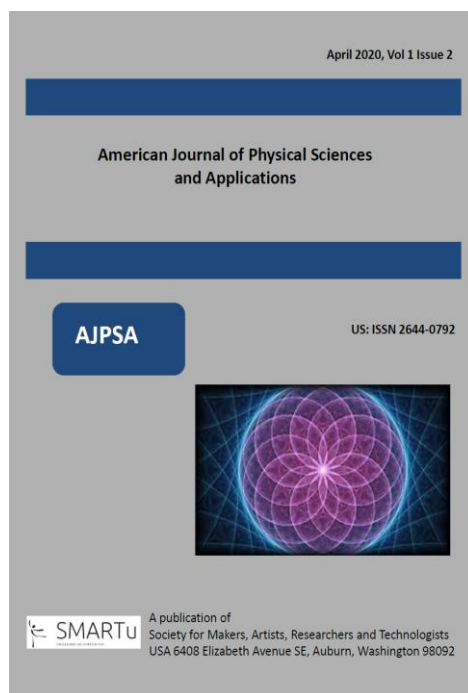


## Department of Basic Science & Humanities

2. American Journal of Applied Mathematics and Computing (AJAMC), International Journal, published quarterly.



3. American Journal of Physical Sciences and Applications (AJPSA), International Journal, published quarterly.



**PhD Candidates  
(Pursuing & Awarded)  
(Since 2015 onwards)**

### PhD Enrollment Details

Name of Candidate	Discipline	Enrollment Year	Status
PAMPI MAJUMDER	<i>Basic Science</i>	2017	Pursuing
DIBAKAR ROY CHODHURY	<i>Bio - Technology</i>	2020	Pursuing
SATABDI PODDAR	<i>Civil</i>	2020	Pursuing
SUBHOJIT PAUL	<i>Electrical</i>	2020	Pursuing
JYOTI SEKHAR BANERJEE	<i>Engineering</i>	2015	<b>Awarded (17.01.2021)</b>
KOUSHIK SARKAR	<i>Engineering</i>	2015	Pursuing
PARTHA SARATHI GOSWAMI	<i>Engineering</i>	2015	Pursuing
ARPITA CHAKRABORTY	<i>Engineering</i>	2015	Pursuing
ANANJAN MAITI	<i>Engineering</i>	2016	Pursuing
MURARI SHAW	<i>Engineering</i>	2017	Pursuing
SNEHASHISH BHATTACHARJEE	<i>Engineering</i>	2017	Pursuing
NABANITA DAS	<i>Engineering</i>	2017	Pursuing
ANSHULIKA SAHAY	<i>Engineering</i>	2020	Pursuing
ANKAN BHOWMIK	<i>Engineering</i>	2020	Pursuing
GAUTAM PURKAYASTHA	<i>Engineering</i>	2021	Pursuing
ANKUR BISWAS	<i>Engineering</i>	2021	Pursuing
APARAJITA MUKHERJEE	<i>Engineering</i>	2021	Pursuing
AKANKSHA TIWARI	<i>Engineering</i>	2020	Pursuing
SUMANTA CHAKRABORTY	<i>Engineering</i>	2020	Pursuing
APARAJITA MUKHERJEE	<i>Engineering</i>	2020	Pursuing
INDRANIL BANERJEE	<i>Engineering</i>	2020	Pursuing
SHREEJITA MUKHERJEE	<i>Engineering</i>	2021	Pursuing
ANINDITA CHATTERJEE	<i>Engineering - CSE</i>	2016	Pursuing
ARPITA MAZUMDAR	<i>Engineering - CSE</i>	2017	Pursuing
DEBKUMAR CHOWDHURY	<i>Engineering - CSE</i>	2017	Pursuing
RITUPARNA PAL	<i>Engineering - CSE</i>	2017	Pursuing
SAYAN MAJUMDER	<i>Engineering - CSE</i>	2017	Pursuing
SUDIP KUMAR PALIT	<i>Engineering - CSE</i>	2017	Pursuing
SUDIPTO KUMAR MONDAL	<i>Engineering - CSE</i>	2017	Pursuing
SUMANTA DAS	<i>Engineering - CSE</i>	2019	Pursuing
SUSHOVAN CHAUDHURY	<i>Engineering - CSE</i>	2020	Pursuing
BISWADEB BANDYOPADHYAY	<i>Engineering - CSE</i>	2020	Pursuing
SOMNATH BANERJEE	<i>Engineering - CSE</i>	2020	Pursuing
KOUSHIK CHATTERJEE	<i>Engineering - CSE</i>	2020	Pursuing
POULAMI GHOSH	<i>Engineering - CSE</i>	2020	Pursuing
ANANNYA DAS	<i>Engineering - CSE</i>	2020	Pursuing
VARSHA PODDAR	<i>Engineering - CSE</i>	2020	Pursuing

SRESTHA SADHU	Engineering - CSE	2020	Pursuing
SUSMITA CHAKI	Engineering - CSE	2020	Pursuing
SUMITA GHOSH	Engineering - CSE	2020	Pursuing
KAUSTUV BHATTACHARJEE	Engineering - CSE	2020	Pursuing
SAYAN ROY	Engineering - CSE	2020	Pursuing
SOHINI MUKHERJEE	Engineering - CSE	2020	Pursuing
KRISHNADAS BANERJEE	Engineering - CSE	2020	Pursuing
SUMIT ANAND	Engineering - CSE	2020	Pursuing
AMIT KUMAR DAS	Engineering - CSE	2015	Pursuing
MANAN GUPTA	Engineering - CSE	2015	Pursuing
TAPAN KUMAR HAZRA	Engineering - CSE	2017	Pursuing
JAYANTA BHATTACHARYA	Engineering - CSE	2017	Pursuing
SUMAN KUMAR DAS	Engineering - CSE	2017	Pursuing
PARAMITA MITRA	Engineering - CSE	2017	Pursuing
PRADIP KUMAR MAJUMDER	Engineering - CSE	2017	Pursuing
SUJATA GHATAK	Engineering - CSE	2017	Pursuing
PANCHALI BHATTACHARYA	Engineering - CSE	2017	Pursuing
PRATIK GHOSE	Engineering - CSE	2016	Pursuing
SANTONU GHOSH	Engineering - CSE	2017	Pursuing
SUMAN GHOSH	Engineering - CSE	2017	Pursuing
SOUMI SAHA	Engineering - CSE	2020	Pursuing
RUPSA SEN	Engineering - CSE	2020	Pursuing
BAVRABI GHOSH	Engineering - CSE	2020	Pursuing
SOMA BHATTACHARYA	Engineering - CSE	2020	Pursuing
GAUTAM GHOSH	Engineering - ECE	2016	Pursuing
DEBASHIS MAJUMDAR	Engineering - ECE	2017	Pursuing
RAJA BASAK	Engineering - ECE	2020	Pursuing
SNEHASIS PAL	Engineering - ECE	2020	Pursuing
KARUNAMAYEE DEY	Engineering - ECE	2020	Pursuing
SOHOM CHAKRABORTY	Engineering - ECE	2020	Pursuing
KAJARI SUR	Engineering - ECE	2020	Pursuing
PARTHA SARATHI PAUL	Engineering - ECE	2020	Pursuing
DEBANJANA GHOSH	Engineering - ECE	2020	Pursuing
AMLAN PRATIM HAZARIKA	Engineering - ECE	2020	Pursuing
SUBINDU SAHA	Engineering - ECE	2020	Pursuing
PRAKASH BANERJEE	Engineering - ECE	2020	Pursuing
INDRANIL BASU	Engineering - ECE	2020	Pursuing
AMIT KUMAR DAS	Engineering - ECE	2020	Pursuing
SOHAM NANDI RAY	Engineering - ECE	2020	Pursuing
SOUVIK GHOSH	Engineering - ECE	2020	Pursuing
ARUNAVA MUKHOPADHYAY	Engineering - ECE	2017	Pursuing
TAPAN KUMAR RANA	Engineering - ECE	2017	Pursuing

SUBHRO CHAKRABORTY	<i>Engineering - ECE</i>	2015	Pursuing
SURAJIT SUR	<i>Engineering - ECE</i>	2015	Pursuing
ANINDYA GHOSH	<i>Engineering - ECE</i>	2016	Pursuing
SADHU PRASAD KAR	<i>Engineering - ECE</i>	2015	Pursuing
SHYAMSUNDAR KAR	<i>Engineering - Electrical</i>	2020	Pursuing
SUBHRANIL DAS	<i>Engineering - Electrical</i>	2016	Pursuing
GORA CHAKRABARTI	<i>Engineering - Mechanical</i>	2016	Pursuing
AMRIT RAJ	<i>Engineering - Mechanical</i>	2017	Pursuing
ARINDAM GHOSH	<i>Engineering - Mechanical</i>	2017	Pursuing
TAPAS KUMAR BISWAS	<i>Engineering - Mechanical</i>	2020	Pursuing
SANOJ DIVAKAR	<i>Engineering - Mechanical</i>	2020	Pursuing
RAJESH PRASAD SARKAR	<i>Engineering- CSE</i>	2016	Pursuing
SUBHABRATA SENGUPTA	<i>Engineering- CSE</i>	2017	Pursuing
RATNA CHAKRABORTY	<i>Engineering- CSE</i>	2017	Pursuing
SUCHANA ROY	<i>Humanities</i>	2020	Pursuing
RAJAT PATHAK	<i>Humanities</i>	2020	Pursuing
NAYANTARA MITRA	<i>Humanities</i>	2020	Pursuing
SUCHISMITA TAGORE MUKHERJEE	<i>Humanities</i>	2021	Pursuing
PATRALIKA BHATTACHARJYA	<i>Humanities</i>	2021	Pursuing
DEEPASHREE DHAR	<i>Humanities - English</i>	2020	Pursuing
DEBOTTAMA ROY	<i>Humanities - English</i>	2020	Pursuing
ABHISHIKTA BHATTACHARJEE	<i>Humanities - English</i>	2020	Pursuing
MOUSUMI PAUL	<i>Humanities - English</i>	2020	Pursuing
RIYA BARUI	<i>Humanities - English</i>	2020	Pursuing
ANKANA GHOSH DASTIDAR	<i>Humanities - English</i>	2020	Pursuing
RIA ROY CHOUDHURY	<i>Humanities - English</i>	2020	Pursuing
SHAKEEB REHAN	<i>Humanities - English</i>	2020	Pursuing
MADHURIMA CHAKRABORTY	<i>Humanities (English)</i>	2020	Pursuing
DEBDOOT MUKHERJEE	<i>Humanities (English)</i>	2021	Pursuing
SAYANTIKA BOSE CHAKRABORTY	<i>Management</i>	2015	<b>Awarded (17.01.2021)</b>
ROOPREKHA BAKSI MAITI	<i>Management</i>	2015	Pursuing
PRITHA GHOSH	<i>Management</i>	2015	Pursuing
SANJOY LAHA	<i>Management</i>	2017	Pursuing
UMAMA HAQUE	<i>Management</i>	2017	Pursuing



SHOUVIK CHATTOPADHYAY	<i>Management</i>	2017	Pursuing
AVIJIT BOSE	<i>Management</i>	2017	Pursuing
MITALI SENGUPTA	<i>Management</i>	2017	Pursuing
ASHUTOSH RAI	<i>Management</i>	2017	Pursuing
DIPANKAR DAS	<i>Management</i>	2017	Pursuing
PRITHA DAS	<i>Management</i>	2017	Pursuing
SAMIK DATTA	<i>Management</i>	2017	Pursuing
SHUBHADIP BANERJEE	<i>Management</i>	2017	Pursuing
SAPTAPARNA GHOSH	<i>Management</i>	2017	Pursuing
RAJKUMAR DASGUPTA	<i>Management</i>	2017	Pursuing
UJWAL KAKKAD	<i>Management</i>	2019	Pursuing
ABIR GHOSH	<i>Management</i>	2019	Pursuing
JAI KISHOR PRASAD	<i>Management</i>	2017	Pursuing
BIBEKANANDA BANERJEE	<i>Management</i>	2019	Pursuing
S.K.BALA SIDDHARTHA	<i>Management</i>	2019	Pursuing
ARUNAVA DALAL	<i>Management</i>	2020	Pursuing
AJAY KUMAR GANGULY	<i>Management</i>	2019	Pursuing
PRATIM CHATTERJEE	<i>Management</i>	2020	Pursuing
PRAGATI SUREKA	<i>Management</i>	2020	Pursuing
SUMAN BOSE	<i>Management</i>	2020	Pursuing
KAUSHIK KUMAR GANGULY	<i>Management</i>	2020	Pursuing
ARPAN GANGULY	<i>Management</i>	2020	Pursuing
DIPANNITA CHATTERJEE	<i>Management</i>	2020	Pursuing
AJANTA GHOSH	<i>Management</i>	2020	Pursuing
SOURAV BANERJEE	<i>Management</i>	2020	Pursuing
PEANAKY MRIDHA	<i>Management</i>	2020	Pursuing
SANGHAMITRA CHAKRABARTI	<i>Management</i>	2020	Pursuing
SAUHARDA NANDI	<i>Management</i>	2020	Pursuing
SUMIT BAL	<i>Management</i>	2020	Pursuing
ANUPAM BHATTACHARYA	<i>Management</i>	2020	Pursuing
JOYSRI DATTA	<i>Management</i>	2020	Pursuing
LAVANYA DEEPIKA TIGGA	<i>Management</i>	2020	Pursuing
MD MAHDE HASSAN	<i>Management</i>	2020	Pursuing
PIYALI BANERJEE	<i>Management</i>	2020	Pursuing
SOMNATH HAZRA	<i>Management</i>	2020	Pursuing
PRARTHANA BANERJEE	<i>Management</i>	2020	Pursuing
SUPRATIK SINHA	<i>Management</i>	2020	Pursuing
DEVJYOTI DAS	<i>Management</i>	2020	Pursuing
TITLY DHAR	<i>Management</i>	2020	Pursuing
DEBASISH SOM	<i>Management</i>	2016	Pursuing
SUTAPA RAYADHIKARY	<i>Management</i>	2017	Pursuing
SAYANTAN RANA	<i>Management</i>	2017	Pursuing

SHREYASI DATTA	<i>Management</i>	2017	Pursuing
ABHILASHA RAHA	<i>Management</i>	2017	Pursuing
PAULAMI NIYOGI	<i>Management</i>	2015	Pursuing
SUMITAVA TALUKDAR	<i>Management</i>	2016	Pursuing
TRISTUP SAHA	<i>Management</i>	2017	Pursuing
SAYANTAN SARKAR	<i>Management</i>	2017	Pursuing
SUHADITYA GUHA	<i>Management</i>	2017	Pursuing
SUBHASRI ROY	<i>Management</i>	2020	Pursuing
AINDRILA CHAKRABORTY	<i>Management</i>	2020	Pursuing
SHIBANI MISHRA	<i>Management</i>	2021	Pursuing
KARTICK DEY	<i>Science</i>	2016	<b>Awarded (17.01.2021)</b>
ANJAN SAMANTA	<i>Science</i>	2021	Pursuing
AVIJIT NEMU	<i>Science - Mathematics</i>	2020	Pursuing
DOYEL SARKAR	<i>Science - Mathematics</i>	2020	Pursuing
ABHIJIT KARGUPTA	<i>Science - Physics</i>	2017	Pursuing
PRABIR KUMAR DAS	<i>Science -&gt; Engineering ECE</i>	2017	Pursuing

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**Publications  
Of  
PhD scholars  
(Since 2015 onwards)**

## **List of Publications:**

- 1. Immigration, Diaspora and Home: Does life give a second chance?**  
Sayantika Bose Chakraborty, Dr. Saptorshi Das  
International Research Journal of Management Sociology & Humanities ISSN 2277 – 9809 (online); ISSN 2348 - 9359 (Print)  
Vol. 10, Issue 11 [2019]
- 2. Theme of Exile in Literature Down the Ages**  
Sayantika Bose Chakraborty, Dr. Saptorshi Das  
International Journal of Humanities and Social Science  
Invention ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714  
Vol. 6, Issue 9, PP. 29-30 [2017]
- 3. THE CINEMATIC ADAPTATION OF CHITRA BANERJEE DIVAKARUNI'S THE MISTRESS OF SPICES**  
Sayantika Bose Chakraborty, Dr. Saptorshi Das  
International Journal of Recent Research in Social Sciences and Humanities (IJRSSH) ISSN 2349-7831  
Vol. 3, Issue 3, pp: (1-5), Month: July - September 2016
- 4. Nalayani: An Immortal Saga of Femininity and Feminism**  
Sayantika Bose Chakraborty, Dr. Saptorshi Das  
Shakespeare Society of Eastern India and TAGORE-GANDHI INSTITUTE FOR CULTURE STUDIES & SERVICE-LEARNING collaboration with ICCR, Kolkata on Sanskrit Epics (Mahabharata and Ramayana) and global classical literatures on 8<sup>th</sup> and 9<sup>th</sup> September, 2018
- 5. Social Media and English**  
Sayantika Bose Chakraborty  
12th International and 48th Annual ELT@I Conference at St. Teresa's College (Autonomous), Ernakulam, Kerala
- 6. Dynamic Versus Static rebates: an investigation on price, displayed stock level, and rebate-induced demand using a hybrid bat algorithm**  
KartickDey, Debajyoti Chatterjee, SubrataSaha, Ilkyeong Moon  
Annals of Operations Research – Springer US  
Abstracting and Indexing: Science Citation Index
- 7. Strategic Inventory: Manufacturer vs. Retailer Investment**  
Ilkyeong Moon, KartickDey, SubrataSaha  
Transportation Research Part E: Logistics and Transportation Review – Elsevier  
Indexing: Scopus
- 8. Influence of procurement decisions in two-period green supply chain**  
KartickDey, SubrataSaha  
Journal of Cleaner Production – Elsevier  
Indexing: Science Citation Index Expanded

9. **The impact of strategic inventory and procurement strategies on green product design in a two-period supply chain**  
KartickDey, Sankhadip Roy, SubrataSaha  
International Journal of Production Research – Taylor & Francis  
Indexing: Science Citation Index
  
10. **Replenishment decision of a retailer under price-inventory-and dynamic rebate induced demand**  
International Conference on Business Analytics and Intelligence (ICBAI - 2016) Organized by ORSI & ASI at Indian Institute of Science Bangalore
  
11. **Investment and Coordination Decisions in a Supply Chain of Agricultural Products** International Conference on Advancing Frontiers in Operational Research: Towards a Sustainable World (AFOR - 2017)  
Organized by ORSI at Heritage Institute of Technology Kolkata
  
12. **Green Manufacturing in a decentralized supply chain**  
2<sup>nd</sup> International Conference on Information Technology and Applied Mathematics (ICITAM 2019)  
Organized by School of Electronics, Computer Science and Informatics, HIT at Haldia Institute of Technology (HIT), Haldia, West Bengal
  
13. **Reliable Best-Relay Selection for Secondary Transmission in Co-operation Based Cognitive Radio Systems: A Multi-Criteria Approach**  
J. S. Banerjee, A. Chakraborty, and A. Chattopadhyay  
Journal of Mechanics of Continua and Mathematical Sciences, 13(2), (pp. 24-42), 2018, (Web of Science)
  
14. **A Novel Best Relay Selection Protocol for Cooperative Cognitive Radio Systems using Fuzzy AHP**  
J. S. Banerjee, A. Chakraborty, and A. Chattopadhyay  
Journal of Mechanics of Continua and Mathematical Sciences, 13(2), (pp. 72-87), 2018, (Web of Science)
  
15. **A Decision Model for Selecting Best Reliable Relay Queue for Cooperative Relaying: The Extent Analysis Based FAHP Solution** (Communicated)  
J. S. Banerjee, A. Chakraborty, and A. Chattopadhyay  
Advances in Electrical and Computer Engineering, (Web of Science)
  
16. **Non-uniform Quantized Data Fusion Rule for Data Rate Saving and Reducing Control Channel Overhead for Cooperative Spectrum Sensing in Cognitive Radio Networks**  
Chakraborty, J. S. Banerjee, and A. Chattopadhyay  
Wireless Personal Communications, 104(2), 837-851, 2019, (Web of Science)
  
17. **Malicious Node restricted Non Uniform Quantized Data Fusion scheme for Trustworthy Spectrum Sensing in Cognitive Radio Networks**(to be Communicated, 2019)  
Chakraborty, J. S. Banerjee, and A. Chattopadhyay
  
18. **An advance Q learning (AQL) approach for path planning and obstacle avoidance of a mobile robot**  
Chakraborty, J. S. Banerjee

International Journal of Intelligent Mechatronics and Robotics  
(IJIMR) 3(1), 53-73, 2013, (DBLP, Scopus).

**19. A comparative study on cognitive radio implementation issues**

J. S. Banerjee, & K. Karmakar

International Journal of Computer Applications

45(15), 44-51, 2012, (EBSCO, Google Scholar Informatics, NASA ADS, CiteSeer, UlrichWeb,)

**20. Fundamentals of Software Defined Radio and Cooperative Spectrum Sensing: A Step Ahead of Cognitive Radio Networks**

J. S. Banerjee, A. Chakraborty

In Handbook of Research on Software. Defined and Cognitive Radio Technologies for Dynamic Spectrum Management (pp. 499-543). IGI Global, 2015, (Scopus)

**21. Modeling of Software Defined Radio Architecture & Cognitive Radio, the Next Generation Dynamic and Smart Spectrum Access Technology**

J. S. Banerjee, A. Chakraborty

In M.H. Rehmani & Y. Faheem (Ed.), Cognitive Radio Sensor Networks: Applications, Architectures, and Challenges (pp. 127-158). Hershey PA: IGI Global, 2014, (Scopus)

**22. Architecture of Cognitive Radio Networks**

J. S. Banerjee, A. Chakraborty, and K. Karmakar

In N. Meghanathan & Y.B.Reddy (Ed.), Cognitive Radio Technology Applications for Wireless and Mobile Ad Hoc Networks (pp. 125-152). Hershey PA: IGI Global, 2013, (Scopus)

**23. Fuzzy based relay selection for secondary transmission in cooperative cognitive radio networks**

J. S. Banerjee, A. Chakraborty, and A. Chattopadhyay

In Advances in Optical Science and Engineering (pp. 279-287). Springer, Singapore, (ISI Proceedings, Scopus)

**24. Relay node selection using analytical hierarchy process (AHP) for secondary transmission in multi-user cooperative cognitive radio systems**

J. S. Banerjee, A. Chakraborty, and A. Chattopadhyay

In LNEE-Advances in Electronics, Communication and Computing (pp. 745-754). Springer, Singapore, (ISI Proceedings, Scopus)

**25. Non-Uniform Quantized Data Fusion Rule Alleviating Control Channel Overhead for Cooperative Spectrum Sensing in Cognitive Radio Networks**

Chakraborty, J. S. Banerjee, and A. Chattopadhyay

In Advance Computing Conference (IACC), 2017 IEEE 7th International (pp. 210-215). IEEE, (ISI Proceedings, Scopus)

**26. A fuzzy AHP-Based relay node selection protocol for wireless body area networks (WBAN)**

S. Paul, A. Chakraborty, & J. S Banerjee

In 2017 4th International Conference on Opto-Electronics and Applied Optics (Optronix) (pP. 1-6). IEEE, 2017, November, (ISI Proceedings, Scopus)

27. **The extent analysis based fuzzy AHP approach for relay selection in WBAN**  
S. Paul, A. Chakraborty, & J. S Banerjee  
In Cognitive Informatics and Soft Computing (pp. 331-341). Springer, Singapore, 2019, (ISI Proceedings, Scopus)
28. **A decision framework of IT-based stream selection using analytical hierarchy process (AHP) for admission in technical institutions**  
O. Saha, Chakraborty, & J. S Banerjee  
In 2017 4<sup>th</sup> International Conference on Opto-Electronics and Applied Optics (Optronix) (pp. 1-6). IEEE, 2017, November, (ISI Proceedings, Scopus)
29. **A fuzzy AHP approach to IT-based stream selection for admission in technical institutions in India**  
O. Saha, Chakraborty, & J. S Banerjee  
In Emerging Technologies in Data Mining and Information Security (pp. 847-858). Springer, Singapore, 2019, (ISI Proceedings, Scopus)
30. **OPNET: a new paradigm for simulation of advanced communication systems**  
J. S Banerjee, D. Goswami, & S. Nandi  
In Proceedings of International Conference on Contemporary Challenges in Management, Technology & Social Sciences, SEMS, pp. 319-328, 2014.
31. **Impact of machine learning in various network security applications**  
J. Banerjee, S. Maiti, S. Chakraborty, S. Dutta, A. Chakraborty, J. S Banerjee  
In Proc. ICCMC 2019 (accepted), IEEE, 2019, (ISI Proceedings, Scopus)
32. **WBAN: A Smart Approach to Next Generation e- healthcare System**  
Pandey, H. Dutta, and J.S. Banerjee  
In Proc. ICCMC 2019 (accepted), IEEE, 2019, (ISI Proceedings, Scopus).
33. **Facial expression recognition for human computer interaction**  
J. Chattopadhyay, S. Kundu, A. Chakraborty, J.S. Banerjee  
In Proc. ICCVBIC 2018. Springer (press), 2018, (ISI Proceedings, Scopus)
34. **A compact circularly polarized isosceles triangular microstrip patch antenna with parasitic elements for Multi-band application**  
Murari Shaw, Niranjana Mandal, Malay Gangopadhyay  
Microwave and Optical Technology Letters (ISSN: 0895-2477)
35. **A low profile miniaturized circular microstrip patch antenna for Dual-band application**  
Murari Shaw, Niranjana Mandal, Malay Gangopadhyay  
Frequenz, Journal of RF-Engineering and Telecommunications (ISSN: 0016-1136)
36. **Dual band triangular patch antenna for land & maritime military communication system and WLAN 5.8GHz application**  
Dipra Chakraborty ; Saurav Kumar Singh ; Paramveer Singh ; Indranil Roy ; Anubhab Banerjee ; Murari Shaw ; Malay Gangopadhyay  
2017 8th IEEE Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON) Year: 2017 | Conference Paper | Publisher: IEEE

37. **A simple Star shaped Microstrip Patch Antenna for penta band application**  
Murari Shaw ; DipraChakravorty ; Saahil Islam ; Malay Gangopadhyaya  
2018 2nd International Conference on Electronics, Materials Engineering & Nano-Technology (IEMENTech) Year: 2018 | Conference Paper | Publisher: IEEE
38. **Circular Microstrip Patch Antenna with U-slots for multi band application**  
Murari Shaw ; Barsha Deb ; Niranjana Mandal  
2018 2nd International Conference on Electronics, Materials Engineering & Nano-Technology (IEMENTech) Year: 2018 | Conference Paper | Publisher: IEEE
39. **Triple band V-slotted Pentagonal Microstrip Patch Antenna**  
Murari Shaw ; SubhamKundu ; Tithi Ghosh ; Subhayan Das ; SannoyMitra ; Malay Gangopadhyay  
2018 9th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON) Year: 2018 | Conference Paper | Publisher: IEEE
40. **V-slots Circular Microstrip Patch Antenna for triple band application**  
Murari Shaw ; SannoyMitra ; Malay Gangopadhyay  
2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON) Year: 2018 | Conference Paper | Publisher: IEEE
41. **A compact circularly polarized isosceles triangular microstrip patch antenna with parasitic elements for multiband application**  
M. Shaw, N. Mandal and M. Gangopadhyay  
Microwave and Optical Technology Letters,  
vol. 62, no.10, pp.3275-3282, 2020, doi:10.1002/mop.32445.
42. **A low profile miniaturized circular microstrip patch antenna for dual-band application**  
M. Shaw, N. Mandal and M. Gangopadhyay  
Frequenz, vol.74, no.9-10, pp.333-349, 2020, doi:10.1515/freq-2020-0003.
43. **A compact polarization reconfigurable stacked microstrip antenna for WiMAX application**  
M. Shaw, N. Mandal and M. Gangopadhyay  
International Journal of Microwave and Wireless Technologies,  
pp.1-16, 2020, doi:10.1017/S1759078720001567.
44. **A wideband hexagonal microstrip patch antenna with linear and circular polarization for multiband application**  
International Journal of Microwave and Wireless Technologies(Under review)
45. **A compact broadband circularly polarized hexagonal microstrip patch antenna for WiMAX application**  
Radioengineering(Under review)



**46. Dual band triangular patch antenna for land & maritime military communication system and WLAN 5.8GHz application**

D. Chakravorty, S.K. Singh, P. Singh, I. Roy, A. Banerjee, M. Shaw, and M. Gangopadhyay  
2017 8th IEEE Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), Vancouver, BC, 2017, pp. 506-508, doi: 10.1109/IEMCON.2017.8117227.

**47. A simple Star shaped Microstrip Patch Antenna for penta band application**

M. Shaw, D. Chakravorty, S. Islam and M. Gangopadhyaya  
2018 2nd International Conference on Electronics, Materials Engineering & Nano-Technology (IEMENTech), Kolkata, 2018, pp. 1-3, doi: 10.1109/IEMENTECH.2018.8465178.

**48. Circular Microstrip Patch Antenna with U-slots for multi band application**

M. Shaw, B. Deb and N. Mandal  
2018 2nd International Conference on Electronics, Materials Engineering & Nano-Technology (IEMENTech), Kolkata, 2018, pp. 1-3, doi: 10.1109/IEMENTECH.2018.8465227.

**49. Triple band V-slotted Pentagonal Microstrip Patch Antenna**

M. Shaw, S. Kundu, T. Ghosh, S. Das, S. Mitra and M. Gangopadhyay  
2018 9th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON), New York City, NY, USA, 2018, pp. 288-290, doi: 10.1109/UEMCON.2018.8796697.

**50. V-slots Circular Microstrip Patch Antenna for triple band application**

M. Shaw, S. Mitra and M. Gangopadhyay  
2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference (IEMCON), Vancouver, BC, 2018, pp. 1276-1278, doi: 10.1109/IEMCON.2018.8615047.

**51. A simple miniaturized wideband equilateral triangular microstrip patch antenna**

M. Shaw and M. Gangopadhyay  
2020 IEEE International IOT, Electronics and Mechatronics Conference (IEMTRONICS), Vancouver, BC, Canada, 2020, pp. 1-7, doi: 10.1109/IEMTRONICS51293.2020.9216337.

**52. Simulating a solar cell at varied Schottky heights in various BSFs and absorber thicknesses**

K Sarkar, K K Ghosh  
Nanomaterials and Energy, journal-article, DOI: 10.1680/jnaen.17.00012 [Scopus and Clarivate analytics, WoS]

**53. Effect of TCO, BSF and Back contact Barrier on CdS/CdTe solar cell: Modeling and Simulation**

K Sarkar, K K Ghosh, N K Mandal

JMCMS, journal-article, DOI: 10.26782/jmcms.2018.04.00009[ESCI, WoS]

**54. Effect of pinhole and its recovery in CdS/CdTe solar cell through fabrication Simulation**

K Sarkar, K K Ghosh

Nanomaterials and Energy, journal-article, DOI: 10.1680/jnaen.19.00012[Scopus and Clarivate analytics, WoS]

**55. Effects of very thin CdS window layer on CdTe solar cell**

K Sarkar

Vol.-14, No.-3, journal-article, JMCMS, DOI: 10.26782/jmcms.2019.06.00002[ESCI, WoS]

**56. Se induced CdTe solar cell: A simulated study on structure and properties**

K Sarkar, K K Ghosh

communicated to IETE Journal of Research (under review). [Scopus and Clarivate analytics, WoS]

**57. Optimization of the window layer in CdTe solar cell**

K Sarkar

IEEE Conference Published in: 2017 4th International Conference on Opto-Electronics and Applied Optics (Optronix), conference-paper, DOI: 10.1109/OPTRONIX.2017.8350001[Scopus and Clarivate analytics, WoS]

**58. Optimal Designing of Higher Efficiency Chalcogenide Thin Film Solar Cell**

K Sarkar

Part of the Springer Proceedings in Physics book series (SPPHY, volume 194), conference- paper, DOI: 10.1007/978-981-10-3908-9\_22[Scopus and Clarivate analytics, WoS]

**59. A review: Thin-Film CdTe/ CdS Solar Cell Technology**

K Sarkar

International Journal on Emerging Trends in Electronics & Communication Engineering  
Vol. 2, Issue 1 – 2018, journal-article

**60. A Review on Energy Harvesting from Various Non-conventional**

K Sarkar

International Journal on Emerging Trends in Electronics & Communication Engineering, Vol. 2, Issue 1 – 2018

**61. A REVIEW ON INDIA'S POTENTIAL OF SOLAR ENERGY**

K Sarkar

Global Journal of Ecology, Environment and Alternate Energy Technologies, Vol 1, Issue 1 – 2018

**62. A REVIEW ON SOLAR CELL**

K Sarkar

Global Journal of Ecology, Environment and Alternate Energy Technologies, Vol 1, Issue 1 – 2018

**63. Classification of Melanoma Through Fused Color Features and Deep Neural Network**

AnanjanMaiti, HimadriShekahargiri, Biswajoy Chatterjee, VenkatesanRajnikanth, Fuqian Shi, NilanjanDey  
Information Technology and Intelligent Transportation Systemsdoi:10.3233/FAIA200049

**64. The Effect of Different Feature Selection Methods for Classification of Melanoma**

AnanjanMaiti, Biswajoy Chatterjee

**65. Skin Cancer Classification through Quantized color features and Generative Adversarial Network**

AnanjanMaiti, Biswajoy Chatterjee, K.C. Santosh  
International Journal of Ambient Computing and Intelligence (IJACI)Doi: 10.4018/IJACI

**66. Improving detection of Melanoma and Naevuswith deep neural networks**

AnanjanMaiti, Biswajoy Chatterjee  
Multimedia Tools and ApplicationsDoi: 10.1007/s11042-019-07814-8

**67. Computer-aided Diagnosis of Melanoma: A Review of Existing Knowledge and Strategies**

AnanjanMaiti, Biswajoy Chatterjee, Amira S. Ashour, NilanjanDey  
Current Medical Imaging DOI:  
10.2174/1573405615666191210104141

**68. An Improved K-NN Algorithm Through Class Discernibility and Cohesiveness**

Rajesh Prasad Sarkar, AnanjanMaiti  
Recent Developments in Machine Learning and Data Analytics, Advances in Intelligent Systems and Computing 740,https://doi.org/10.1007/978-981-13-1280-9\_41

**69. Preprocessing of Skin Cancer Using Anisotropic Diffusion and Sigmoid Function**

KartikSau, AnanjanMaiti and Anay Ghosh  
Advanced Computational and Communication Paradigms, Advances in Intelligent Systems and Computing 706,https://doi.org/10.1007/978-981-10-8237-5\_6

**70. Investigation of Dataset from DiabeticRetinopathy ThroughDiscernibility-Based k-NN Algorithm**

Rajesh Prasad Sarkar, AnanjanMaiti  
Contemporary Advances in Innovative and ApplicableInformation Technology, Advances in Intelligent Systems and Computing 812,https://doi.org/10.1007/978-981-13-1540-4\_10

**71. Cryptographic Scheme using the Biological Properties of DNA-RNA - A Review**

ParthaSarathiGoswami, Tamal Chakraborty, SouravSaha  
American Journal of Advanced Computing, Vol III (2), pp.61-65,  
2016 Indexing: Google Scholar

**72. A Novel Encryption Technique Using DNA Encoding and Single Qubit Rotations**

ParthaSarathiGoswami, Tamal Chakraborty, Harekrishna Chatterjee  
International Journal of Computer Sciences and Engineering, Volume-6, Issue-3, pp 364-369, 2018  
Indexing: UGC Listed

**73. Design of a Quantum One Way Trapdoor Function**

ParthaSarathiGoswami, Tamal Chakraborty  
Advances in Intelligent Systems and Computing, Springer Nature Publication, Vol. 937, pp 547-555, July, 2019  
Indexing: SCOPUS

**74. Quantum Key Distribution Protocol for Knapsack Cryptosystem**

ParthaSarathiGoswami, Tamal Chakraborty, Abir Chattopadhyay  
International Journal of Computer Sciences and Engineering, Volume-7, Special Issue-18, pp 17-21, May 2019  
Indexing: UGC Listed

**75. Knapsack Encoding for Secured Quantum Key Distribution Protocol**

ParthaSarathiGoswami, Tamal Chakraborty, Abir Chattopadhyay  
Modern Physics Letters A (MPLA), Vol. 35, No. 36 (2020) 2050295 (16 pages)  
Indexing: Science Citation Index (SCI), Science Citation Index Expanded(SCIE), SCOPUS

**76. A Novel Quantum DNA Cipher using Fermat Numbers**

ParthaSarathiGoswami, Tamal Chakraborty, AbirChattopadhyay  
SeyBold Report Journal, Volume 15, Issue 9, Sept. 2020 pp 2052-2060 Indexing: SCOPUS

**77. A Critical Survey of Quantum Session Key Exchange Using Various Encoding Schemes**

ParthaSarathiGoswami, Tamal Chakraborty, Abir Chattopadhyay  
Journal of Huazhong University of Science and Technology, Volume 50, Issue 3, March 2021 pp 1-6  
Indexing: SCOPUS

**78. A Nature Inspired DNA Encoding Technique for Quantum Session Key Exchange Protocol**

ParthaSarathiGoswami, Tamal Chakraborty, Abir Chattopadhyay  
Advances in Nature-Inspired Cyber Security and Resilience, Springer Nature  
Publication, Initially Accepted  
Indexing: SCOPUS

**79. Application of Fermat Numbers in DNA based Quantum Key Exchange Algorithm**

ParthaSarathiGoswami, Tamal Chakraborty, Abir  
Chattopadhyay IETE Journal of Research, Communicated  
Indexing: Science Citation Index Expanded(SCIE), SCOPUS

**80. Godel Code Encoding for Quantum Key Distribution Protocol using DNA Mapping**

ParthaSarathiGoswami, Tamal Chakraborty, Abir Chattopadhyay  
Modern Physics Letters A (MPLA), Communicated  
Indexing: Science Citation Index (SCI), Science Citation Index Expanded(SCIE), SCOPUS

**81. Non-uniform quantized data fusion rule for data rate saving and reducing control channel overhead for cooperative spectrum sensing in cognitive radio networks**

Chakraborty, A., et. al.(2019)  
Wireless Personal Communications, 104(2), 837-851, Springer, (SCIE). (IF: 1.20)

**82. A Decision Model for Selecting Best Reliable Relay Queue for Cooperative Relaying in Cooperative Cognitive Radio Networks: The Extent Analysis Based Fuzzy AHP Solution**

Chakraborty, A., et. al. (2021)  
Wireless Networks, Springer, <https://doi.org/10.1007/s11276-021-02597-z>, (SCIE). (IF: 2.659)

**83. Malicious node restricted quantized data fusion scheme for trustworthy spectrum sensing in cognitive radio networks**

Chakraborty, A., et. al. (2020)  
J. Mech. Contin. Math. Sci. 15(1), 39–56. (ESCI).

**84. Reliable best-relay selection for secondary transmission in co-operation based cognitive radio systems: a multi-criteria approach**

Chakraborty, A., et. al. (2018).  
J. Mech. Continua Math. Sci, 13(2), 24-42, (ESCI).

**85. A novel best relay selection protocol for cooperative cognitive radio systems using fuzzy AHP**

Chakraborty, A., et. al. (2018)  
J. Mech. Continua Math. Sci, 13(2), 72-87, (ESCI).

**86. Non-uniform Quantized Data Fusion Rule Alleviating Control Channel Overhead for Cooperative Spectrum Sensing in Cognitive Radio Networks**

Chakraborty, A., et. al. (2017)  
in Proc. IACC, 2017 IEEE, IEEE, 2017, (WoS, Scopus).  
<https://ieeexplore.ieee.org/abstract/document/7976789>

**87. Relay node selection using analytical hierarchy process (AHP) for secondary transmission in multi-user cooperative cognitive radio systems**

Chakraborty, A., et. al. (2018)  
In: Proc. ETAERE, Springer, 745-754, (WoS, Scopus).

**88. Fuzzy Based Relay Selection for Secondary Transmission in Cooperative Cognitive Radio Networks**

Chakraborty, A., et. al. (2017).  
In: Proc. OPTRONIX, Springer, 279-287, (WoS, Scopus).

**89. Optimizing the role of organizational commitment: A qualitative study in the school education sector.**

Maiti, R. B. & Sanyal, S. N. (2018).  
International Journal of Organizational Analysis, 26(4), 669-690. (Emerald, ISSN: 1934-8835). (Scopus-Indexed, ESCI and ABDC B-listed Journal).

**90. Antecedents and consequences of organizational commitment in school education sector.**

Maiti, R. B., Sanyal, S. N. & Mazumder, R. (2021).  
International Journal of Organizational Analysis, 29(3), 716-735. (Emerald, ISSN: 1934-8835). (Scopus-Indexed, ESCI and ABDC B-listed Journal).

**91. Organizational Commitment of Working Women: The Role Optimization. International Journal of Management Practice.**

Maiti, R. B. & Sanyal, S. N.  
(InderScience Publishers, ISSN: 1741-8143). (Scopus-Indexed Journal). Accepted for publication (07.07.2021)

**92. Women in Information Technology: How Organizationally Committed they are.**

Baksi, R & Sanyal, S. N. (2021).  
1st International Conference on Cyber Intelligence & Information Retrieval (CIIR 2021), organized jointly by Institute of Engineering & Management and Springer, 20 & 21 May, 2021 at Kolkata [conference proceedings will be published in Springer (LNNS Series), now indexed by: ISI Proceedings, DBLP, Ulrich's, EI-Compendex, SCOPUS, Zentralblatt Math, MetaPress and Springerlink].

**93. Antecedents to and effect of organizational commitment in school education sector: A Quantitative Study.**

Maiti, R. B. & Sanyal, S. N. (2018).

Management Doctoral Colloquium & VGSOM Research Scholars' Day, organized by Vinod Gupta School of Management on 14-15 March, 2018 at Indian Institute of Technology, Kharagpur (IIT, KGP).

**94. Factors influencing optimization of organizational commitment: A qualitative study in the school education sector.**

Maiti, R. B. & Sanyal, S. N. (2017).

National Conference in Expanding Frontiers of Applied Psychology, organized by Department of Applied Psychology, University of Calcutta, India on 3-4 March, 2017 at the University of Calcutta.

**95. A qualitative analysis on the influence of factors on organizational commitment among the school teachers**

Maiti, R. B. & Sanyal, S. N. (2017).

1st IEM Convention, 2017, organized by Department of Business Management, Institute of Engineering & Management, Kolkata on 24-25 November, 2017.

**96. Aspect based sentiment analysis for demonetization tweets by optimized recurrent neural network using fire fly-oriented multi-verse optimizer**

Samik Datta & Satyajit Chakrabarti

Sādhanā volume 46, Article number: 79 (2021) (SCIE)

Indian Academy of Sciences <https://doi.org/10.1007/s12046-021-01608-1>

**97. Comparative Reliability Analysis of PV Modules under tropical conditions**

D. Majumdar, S.B. Pal, R. Ganguly

2021 Innovations in Energy Management and Renewable Resources (52042), Kolkata, India, 2021, pp.1-5, doi:10.1109/IEMRE52042.2021.9386742.

**98. A comparative study based on Long Short Term Memory networks for assessing Photovoltaic Power**

D. Majumdar, M. Bhattacharjee, S.B. Pal, R. Ganguly,

, Advs in Intelligent Syst., Computing, Vol.1349, Asit Kumar Das et al. (Eds): Computational Intelligence in Pattern Recognition, 978-981-16-2542-8, 510900\_1\_En, (Chapter 11).

**99. New PV Metrology for performance appraisal of Poly Silicon PV Modules in Eastern Indian climatic Zone**

D. Majumdar, S.B. Pal, R. Ganguly

Renewable Energy and Power Quality Journal (RE&PQJ) ISSN 2172- 038X, Volume No.19, September 2021

**100.** A scholarly article completed in 2017, presented at IMI-K MARCON 2017 at International Management Institute, Kolkata on 19 December 2017. – Pritha Ghosh  
The paper is published in 2020 at the Journal of Marketing Analytics (A Palgrave Macmillan Ltd., ISSN: 2050-3326, Scopus indexed, ABCD “C” ranked by impact factor 0.830, ESCI).

**101.** A scholarly article completed in 2019, presented at IEMICON 2019 at IEM, Management House on 7 September 2019 and yet to be communicated as after repeated rejections  
Pritha Ghosh

**102.** A scholarly article completed in 2020, presented at GMC-2020 at Globsyn Business School on 10 and 11 December 2020. The paper is communicated to Vision:  
Pritha Ghosh

The Journal of Business Perspective (SAGE Journal, ISSN: 0972-2629, Scopus-indexed, ABDC “C” ranked by impact factor 0.506, ESCI) on 1 February 2021.

**103.** Published with the winning title in IEEE Int. Conf., Vitek M., Das A., Pourcenoux Y., Missler A., Paumier C., **Das S.**, Ghosh I.D., et al., IJCB- 2020: **Sclera Segmentation Benchmarking Competition in the mobile environment** (SSBC-2020), Houston, USA, ISBN978-1-7281-6396-3.

**104.** Presented & Published in: IEEE Conference Applied Signal Processing ASPCON :**Das S.**, Ghosh I.D., Chattopadhyay A, **An efficient deep learning strategy: Its application in sclera segmentation**, Jadavpur Univ., Kolkata, 2020, pp. 232–236, ISBN978-1-7281-6881-4.

**105.** Presented & being published in Scopus indexed Springer International Conf. ICCET2021: **Das S.**, Ghosh I.D., Chattopadhyay A, **Deep age estimation using sclera images in multiple environments**, in January-2021. DOI : 10.1007/978-981-16-2008-9.

**106.** Accepted & being published in SCI & Scopus Journal "Signal Processing: Image Communication" with status: “Publication in process”,**Das S.**, Ghosh I.D., Chattopadhyay A, **An Efficient Deep Sclera Recognition Framework with Novel Sclera Segmentation, Vessel Extraction and Gaze Detection.**

**107.** Communicated to SCI & Scopus journal in March-2021:- Machine Vision and Applications. “**Das S.**, Ghosh I.D., Chattopadhyay A ,**Deep sclera recognition in cross-environment using a novel mobile dataset**”.

**108.** Under Supervisor’s review for Scopus Journal Publication:-“**Evaluation of novel sclera modality for deep human age estimation.**”

**109. A Study on Relationship between Customer Loyalty and Customer Trust in online Shopping**

Umama Haque

International Journal of Online Marketing –IGI Journal under ESCI - **Published**

**110. “Effect of Social Media Influencers on Purchase Intention in shopping of Electronic Goods”**

Umama Haque

International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 05, 2020 – Scopus Indexed ISSN: 1475-7192v – **Published**

**111. Online Shopping Behavior among College Students- A Comparative study between India and Canada**

Umama Haque

International Journal of Consumer Behavior – Wiley Online library- Scopus Indexed ISSN: 1479- 1838- **Communicated**



**112. Mobile User Authentication Technique in Global Mobility Network**

Sudip Kumar Palit

Advances in Intelligent Systems and Computing, Springer –Published

Indexing: SCOPUS

**113. AUGChain: Blockchain based mobile user authentication scheme in Global Mobility Network**

Sudip Kumar Palit

Journal of SuperComputing, Springer – Communicated

Indexing: Journal(SCI)

**114. Forecast Model Development of Some Selected Wholesale Price Index of India Using MLP**

Das D., Chakrabarti S. (2021)

In: Balas V.E., Hassani A.E., Chakrabarti S., Mandal L. (eds) Proceedings of International Conference on Computational Intelligence, Data Science and Cloud Computing. Lecture Notes on Data Engineering and Communications Technologies, vol 62. Springer, Singapore. [https://doi.org/10.1007/978-981-33-4968-1\\_18](https://doi.org/10.1007/978-981-33-4968-1_18)

**115. Forecasting of the WPI of Textiles in India: An Neural Approach.**

Das, D., & Chakrabarti, S. (2021, February 25-27).

6th International Conference on Emerging Applications of Information Technology (EAIT 2020), West Bengal, India.

**116. Review & Comparison of Face Detection Techniques**

Sudipto Kumar

Mondal E-

HACON 2019

**117. Virtual Assistant Based Emotion Recognition System**

Sudipto Kumar

Mondal

UEMCOS

2020

**118. Real-Time Object Detection Comparative Study**

Sudipto Kumar

Mondal

UEMGREEN

2021

**119. Determination of Factors Influencing the Performance of Indian Private Sector Banks by Using the CAMEL Model**

Sanjoy Laha

Estudios de Economía Aplicada- Under Review

Indexing: Emerging Sources Citation Index, Scopus, EconLit, RePec, Isoc, Latindex, Dialnet, Redalyc

**120. Synthesis, Properties of graphene oxide-metal oxide mixed nanocomposites and their applications (Review)**

Pampi Majumder, Kakoli Dutta and Partha

Dutta Int.J.Adv.Sci.Eng., Vol.5, No.3 1032-1039 (2019).

**121. Prediction of Future Career Path Using Different Machine Learning Models**

Subhabrata Sengupta

IEMIS 2020: 2<sup>nd</sup> International Conference on Emerging Technologies in Data Mining and Information Security

Series Title: Lecture Notes in Networks and Systems Series (Indexed by SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago. All books published in the series are submitted for consideration in Web of Science.)

eBook ISBN: 978-981-15-9774-9, DOI: 10.1007/978-981-15-9774-9

**122. “In-Detail Analysis on Custom Teaching and Learning Framework”**

Subhabrata Sengupta

International Journal of Computer Applications

Foundation of Computer Science (FCS), NY, USA, Volume 176 -

Number 33 DI 10.5120/ijca2020920390

Indexing: Google Scholar, ProQuest, ULRICHSWEB, CiteSeer, EBSCO.

**123. “Educational Data Mining and Students’ Academic Performance Prediction”**

Subhabrata Sengupta

IEM-ICDC 2020: International Conference on Computational Intelligence, Data Science and Cloud Computing

Proceedings of International Conference on Computational Intelligence, Data Science and Cloud Computing

Series Title: Lecture Notes on Data Engineering and Communications Technologies eBook ISBN: 978-981-33-4968-1, DOI:

<https://doi.org/10.1007/978-981-33-4968-1>

**124. Understanding the Trends in Information and Communication Technology Adaptability in the Handicraft Segment in India for Global Competitiveness**

Dalal, A. and Chattopadhyay, S.

Journal of Huzhou University of Science and Technology, Vol 50 No.04. (The journal is indexed in **Scopus** and **UGC Care**)

**125. Conflict management in the health care sector: An Indian scenario.**

Sengupta, M., Chakrabarti, S., & Mukhopadhyay, I. (2018).

International Journal of Education and Management Studies, 8(1), 153-161.

Indexing: (UGC)

**126. Sengupta, M., Chakrabarti, S., & Mukhopadhyay, I. (2019). Waiting Time: The Expectations and Preferences of Patients in a Paediatric OPD.**

Journal of Health Management, 21(3), 427-442.

Indexing: (ESCI, Scopus)

**127. Challenges encountered by healthcare providers in COVID-19 times: An exploratory study.**

Sengupta, M., Roy R, Baishya K, Chakrabarti, S., & Mukhopadhyay, I. (2021).

Journal of Health Management (Accepted for June 21 publication)

Indexing: (ESCI, Scopus)

**128. Spectrum and Analysis of various socio cultural themes leading to non-adherence of anti-tubercular treatment in an Indian clinical setup**

Sengupta, M., Chakrabarti, S., & Mukhopadhyay, I. (2018).

Sustainable development: A value chain perspective. Tiger Print. (Book Chapter)

**129. Mobile Application based modified screening and assessment tools for children with autism**

A. Mazumdar, B. Chatterjee, M. Banerjee

International Journal of Interactive Mobile Technologies (iJIM), Vol 13, No. 8

Indexing: [Scopus indexed]

**130. Mobile Application based Early Educational Intervention for Children with Autism—a pilot trail**

Arpita Mazumdar, Mallika Banerjee, Biswajoy Chatterjee, Sayan Saha & Gaurishankar Gupta

Disability and Rehabilitation: Assistive Technology

ISSN 1748-3107 (print); 1748-3115 (web) DOI:10.1080/17483107.2021.1927208

Indexing: [ESCI, SCOPUS indexed]

**131. Positioning of private label brands of men's apparel against national brands**

Pritha Ghosh

Journal of Marketing Analytics, ISSN:2050-3326, Indexing: Scopus-indexed

**132. Mitigating wormhole attack in MANET using absolute deviation statistical approach**

S Majumder, D Bhattacharyya

2018 IEEE 8th Annual Computing and Communication Workshop and Conference

**133. Relation Estimation of Packets Dropped by Wormhole Attack to Packets Sent Using Regression Analysis**

S Majumder, D Bhattacharyya

Emerging Technology in Modelling and Graphics 937, 557-566

**134. Adopting Machine Learning Technique to Mitigate Various Attacks in MANET- A Survey Report**

S Majumder, D Bhattacharyya

International Journal of Scientific Research and Review 8 (6), 288-295

**135. Comparative Study between Modified DSR and AODV Routing Algorithms to Improve the PDF Due to Wormhole Attack in MANET**

S Majumder, D Bhattacharyya

International Journal of Scientific Research and Review 8 (1), 1095-1102

**136. Improvement of Packet Delivery Fraction Due to Wormhole Attack by Modified DSR and AODV Algorithm**

S Majumder

Proceedings of the Global AI Congress 2019, 81-89

**137. Improvement of Packet Delivery Fraction Due to Discrete Attacks in MANET Using MAD Statistical Approach**

S Majumder, D Bhattacharyya

Proceedings of the Global AI Congress 2019, 187-196

**138. A Survey on Comparison Analysis Between EEG Signal and MRI for Brain Stroke Detection**

Snehasis Bhattacharjee

In Proceedings of IEMIS 2018, Volume 3, January

2019 DOI:10.1007/978-981-13-1501-5\_32

**139. Time efficient image encryption-decryption for visible and COVID 19 X-Ray images using modified chaos based logistic map**

Snehasis Bhattacharjee

Journal of Information Security and Applications, Elsevier

**140. A Survey for COVID-19 Medical Image Encryption Techniques in Tele-medicine and E- healthcare**

Snehasis Bhattacharjee

International Journal of Advanced Computer Science and Applications  
(IJACSA) DOI: 10.14569/issn.2156-5570

**141. Dimension Dependent Density-of-States Function and the Radiation Laws**

PK Das, KP Ghatak,

Journal of nanoscience and nanotechnology 19 (5), 2909-2912 (2019)  
Indexing: (SCOPUS)

**142. Influence of Intense Electric Field on the Screening Length in Opto-Electronic Materials**

KP Ghatak, S Chakrabarti, B Chatterjee, PK Das, P Dutta, A

Halder, Materials Focus 7 (3), 390-404 (2018)

Indexing: (EMERGING SOURCES CITATION INDEX (ESCI))

**143. Heavily Doped Single Quantum Wells and the Effective Mass**

PK Das, P Dutta, A Halder, J Pal, N Debbarma, S Debbarma, KP Ghatak,

Materials Focus 6 (2), 167-218 (2017)

Indexing: (EMERGING SOURCES CITATION INDEX (ESCI))

**144. Can Photons Affect the Entropy?**

PK Das, P Dutta, A Halder, R Bhattacharjee, KP

Ghatak Materials Focus 6 (2), 133-166 (2017)

Indexing: (EMERGING SOURCES CITATION INDEX (ESCI))

**145. pH dependent tunable photoluminescence of polyaniline grafted graphene oxide (GO– PANI) nanocomposite**

P Saha, DK Pyne, M Pal, S Datta, PK Das, P Dutta, A Halder

Journal of Luminescence 181, 138-146 (2017)

**146. The Density-of-States Functions in Quantum Dots**

R Paul, M Mitra, S Chakrabarti, B Chatterjee, PK Das

Advanced Science, Engineering and Medicine 11 (10), 907-913  
(2019) Indexing: (EMBASE (ELSEVIER))

**147. THE MAGNETO ELECTRON STATISTICS IN HEAVILY DOPED NIPI STRUCTURES**

P. K. Das, J. Pal, and K. P. Ghatak,

Journal of Nano Science and Nano Technology (COMMUNICATED SCIE, WEB OF SCIENCE)

**148. ON THE ELECTRON DENSITY IN DOPING SUPERLATTICES**

P. K. Das, J. Pal and K. P.  
Ghatak  
ActaPhysicaPolonica A  
Indexing: (SCOPUS)

**149. Electron Energy Spectra in Quantized Structures**

P. K. Das and K. P. Ghatak  
Topics in Current Nanoscience, Editors: E. Meletis, C. Politis and W. Schommers, in the series  
“Foundations of Natural Science and Technology” of World Scientific, USA (2020)

**150. The Diffusivity Mobility Ratio in Quantum Wire Superlattices,**

P. K. Das et. al., Quantum Wires: An Overview, NOVA, USA (2020)

**151. The Einstein’s Photoemission from Heavily Doped Quantum Wires**

P. K. Das et. al., Quantum Wires: An Overview, NOVA, USA (2020)

**152. Influence of Terahertz Frequency on the Elastic Constants in 2D Systems**

P. K. Das et. al. (2020) (IN EMERGING TRENDS IN TERAHERTZ SOLID-STATE  
PHYSICS AND DEVICES, SPRINGER (IN THE PRESS)  
Indexing: (SCOPUS)

**153. The Carrier Statistics, Terahertz Frequency, Extremely Degenerate Opto-Electronic Materials and All That**

P. K. Das et. al. (2021) (IN EMERGING TRENDS IN TERAHERTZ SOLID-STATE  
PHYSICS AND DEVICES, SPRINGER  
Indexing: (SCOPUS)

**154. A study on the consumers’ satisfaction of fintech solutions provided by an Indian Major Bank during Covid times**

Ajay Kumar Ganguly  
UEM, Kolkata [University of Engineering and Management, Kolkata] – Under Review

**155. Impact of Moratorium On Consumer Demographic Profile: Case Study On ICICIBank Home Loan Customer**

Ajay Kumar ganguly  
Calcutta Business School – Under Review

**156. Bank Employees Perception on Technology Adoption in Banks: An Emperical**

## **study on Two Major Private Banks**

Ajay Kumar Ganguly

INTERNATIONAL JOURNAL OF EDUCATION, MODERN MANAGEMENT, APPLIED SCIENCE & SOCIAL SCIENCE (IJEMMASSS)

ISSN: 2581-9925, Impact Factor: 6.340, Volume 03, No. 01, January - March, 2021, pp.139-145

### **157. Complementary Dual-output Universal Gate in Quantum Dot Cellular Automata**

Ratna Chakrabarty, N K Mandal

Published in IEMECON 2017(**Scopus Indexed**)

### **158. A Novel Design of Flip-Flop Circuits using Quantum Dot Cellular Automata (QCA)**

RatnaChakrabarty, N K Mandal

CCWC January 2018 (**Scopus Indexed**)

### **159. Design of 2's Complement 4-bit binary Numbers Using Quantum Dot Cellular Automata**

RatnaChakrabarty, N K Mandal

International Conference on Electronics, Materials Engineering & Nano-Technology  
September 2018 (**Scopus Indexed**)

### **160. Design of Binary to Gray Code Converter for error Correction in Communication Systems Using Layered Quantum Dot Cellular Automata**

RatnaChakrabarty, N K Mandal

International Conference on Electronics, Materials Engineering & Nano-Technology,  
IEEE conference, September 2018 (**Scopus Indexed**)

### **161. Design and of Operational Amplifier using Quantum Dot Cellular Automata**

RatnaChakrabarty, N K Mandal

3rd International Conference on Electronics, Materials Engineering and Nano-Technology,  
IEEE conference, August 2019 (**Scopus Indexed**)

### **162. Design of Master Slave flip flop in Quantum Dot Cellular Automata (QCA)**

RatnaChakrabarty, N K Mandal,

4th International Conference on Electronics, Materials Engineering & Nano-Technology, IEEE  
conference, October, 2020 (**Scopus Indexed**)

### **163. Design of a Controllable Adder-Subtractor circuit using Quantum Dot Cellular**

**Automata"** RatnaChakrabarty, N K Mandal

IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE) e-ISSN: 2278-1676,  
p-ISSN: 2320-3331, Volume 12, Issue 4 Ver. II (Jul. – Aug. 2017) (**UGC recognized**)

**164. Design and simulation of a Tristate Buffer circuit in Quantum Dot Cellular Automata**

RatnaChakrabarty, N K Mandal

IOSR Journal of Computer Engineering (IOSR-JCE) e-ISSN: 2278-0661, p-ISSN: 2278-8727,  
Volume 21, Issue 2, Ser. II (Mar - Apr 2019), PP 11-22 [www.iosrjournals.org](http://www.iosrjournals.org) (UGC recognized)

**165. Design of Convolution Encoder Using Quantum Dot Cellular Automata**

RatnaChakrabarty, N K Mandal,

International Journal of Information and Coding Theory, Indersciencepublications, Vol.5 No.3/4,  
pp.227 –238, October 2020 (Peer reviewed)

**166. Design of Encoder Circuit Using Layered NAND and NOR Gates in Quantum Dot Cellular Automata**

RatnaChakrabarty, N K Mandal

International Journal of Nanoscience and Nanotechnology (IJNN) Volume 17, Issue 1, March  
2021 (Scopus Indexed)

**167. Assessing communication issues on the basis of Personality, Perceived Stress, Family Environment and Self-Esteem of Individuals with and without Substance Related Disorders**

PragatiSureka

International Journal of English Learning and Teaching  
Skills, ISSN: 2639-7412(Print), ISSN: 2638-5546(Online)

Vol 3, No. 3, April – 2021, pp. 1818-1934, doi: [doi.org/10.15864/ijelts.3112](https://doi.org/10.15864/ijelts.3112)

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**Externally Funded  
Research Projects  
(June 2020 to July 2021)**



## Funded Research Details

### Department of Bio Technology

Project Name	Funding Agency Name	Application Date	Principal Investigator	Amount	Status
Downregulating the expression of Phenol soluble modulins by natural compounds: A biogenic way to fight Staphylococcal infection	DST(SERB)	27 <sup>th</sup> February 2021	Moupriya Nag	Rs.36,00,000/-	Under Review
Assessment of an effective remedial measure against arsenic overload in the affected population of West Bengal	DST(SERB)	7 <sup>th</sup> March, 2021	Susmita Mukherjee	Rs.12,12,000/-	Applied
A study to unravel the chemical interaction between bamboo flower and rodents and its implication in rodent control	DST(SERB)	8 <sup>th</sup> March, 2021	Pratik Talukder	Rs.36,92,000/-	Applied

**Department of Basic Science & Humanities**

<b>Project Name</b>	<b>Funding Agency Name</b>	<b>Application Date</b>	<b>Principal Investigator</b>	<b>Amount</b>	<b>Status</b>
Theoretical Studies of Electronic Structure and Optical properties of Polymers and Perovskite material	DST(SERB)	6th March, 2021	Rina Dutta	Rs. 17,79,000/-	Applied
Development of Novel Graphine Based Nano-Materials for Energy Storage Application	DST(SERB)	8th March, 2021	Subhasis Rana	Rs. 26,46,567/-	Applied
Preparing environmentally friendly nonmaterials from environmental pollutants and using them in green energy production	TAIF University, Al Hawaiyah, UAE	24th March, 2021	Tanay Pramanik	\$50,000.00(USD)	Applied

**Department of Electronics & Communication Engineering**

<b>Project Name</b>	<b>Funding Agency Name</b>	<b>Application Date</b>	<b>Principal Investigator</b>	<b>Amount</b>	<b>Status</b>
Design and implementation of equivalent electrical gene model for genetic disease diagnosis	DST(SERB)	2020 (Year of completion)	Tanusree Roy	Rs. 18,61000/-	Completed
Neural Network Based Linearizing Circuit	DST(SERB)	16th March, 2021	A. Chattopadhyay	Rs.36,92,000/-	Applied

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**Grant In Aid  
Research Projects  
Funded by IEM Trust  
(Since 2019 onwards)**

## Grant In Aid Projects

### Department of Bio Technology

Name of the faculty as PI	Title of the research Project	Amount of the Grant received (INR)	Date of Commencement
Dr. Susmita Mukherjee	To develop and analyze thhe potential fertilizer formulation for reduced arsenic uptake by plants	80000	08-01-2019
Dr. Moupriya Nag	Efficacy of Green Synthesized Zinc oxide Nanoparticle againt dental biofilm: formulation of a smart mouth wash	105000	08-01-2019
Dr. Pratik Talukder	Chlorogenic acid, one of the most important secondary metabolite of brinjal can be potential biopesticide for the biocontrol of brinjal shoot and fruit borer pest	150000	08-01-2019

### Department of Mechanical Engineering

Name of the faculty as PI	Title of the research Project	Amount of the Grant received (INR)	Date of Commencement
Dr. Goutam Paul	Investigation on Machinability of Graphene reinforced Al alloys under cryogenic & MQCL condition	296710	07-11-2019

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# **Patents Filed**

## **(Since 2016 onwards)**

### Patents Filed/ Published/ Granted

Sl. No.	Filing Date	Patent File Number	Title	Status	Faculty members as Inventors
1	12.09.2019	201931036822	<i>Mango jelly with citrus peel extracted pectin – a novel natural product enhancing the total antioxidant value</i>	Published	Dr. Sonali Paul, Dr. Susmita Mukherjee
2	04.11.2019	201931044618	<i>A Novel Composition of Multifunctional (antimicrobial, digestive, natural food life enhancer) Low Cost Herbal Food Additive</i>	Patent application filed	Dr. Biswadeep Chaudhuri, Dr. Pratik Talukder, Dr. Susmita Mukherjee
3	02.04.2021	202131015750	Assessment of an effective remedial measure against arsenic overload in the affected population of West Bengal	Patent application filed	Dr. Susmita Mukherjee, Dr. Sonali Paul
4	02.04.2021	202131015750	Assessment of an effective remedial measure against arsenic overload in the affected population of West Bengal	Patent application filed	Dr. Susmita Mukherjee, Dr. Sonali Paul
5	21.04.2021	2021100831	<i>Aqua Plus- A Humidity Dependent Water Extraction Method</i>	<b>AUSTRALIAN PATENT GRANTED</b>	Dr Tanay Pramanik
6	16.06.2021	2021102598	<i>A Wearable Electro Acupuncture Device for COVID Treatment</i>	<b>AUSTRALIAN PATENT GRANTED</b>	Dr Tanay Pramanik
7	27.01.2021	202131003524	<b>VOID PNEUMA, AN ARTIFICIAL LEAF FOR CREATING PROPER OXYGEN CONDITIONS IN MINES</b>	Patent application filed	Anirban Das
8	27.01.2021	202131003522	<b>TRISTRAM-ENIGMA: THE CODE TO CREATE HEALTHY CITIES</b>	Patent application filed	Anirban Das
9	27.01.2021	202131003528	<b>TOUCH-N-CARE: A GEL TO HEAL SKIN</b>	Patent application filed	Anirban Das
10	27.01.2021	202131003529	<b>THUNDER-HOUND, AN UNDER-WATER MINING SUPER-STRUCTURE IN THE INDIAN OCEAN</b>	Patent application filed	Anirban Das
11	27.01.2021	202131003527	<b>STEELASTIC: A MEDICAL WASTE RECYCLED ECO-ALLOY FOR INFRASTRUCTURAL REENGINEERING</b>	Patent application filed	Anirban Das

12	27.01.2021	202131003535	<i>STAR-DUST: HEALING HUMONGOUS WATERS</i>	Patent application filed	Anirban Das
13	27.01.2021	202131003520	<i>SHATTERED-STAR: A TECHNIQUE TO ENERGY-HEALING</i>	Patent application filed	Anirban Das
14	27.01.2021	202131003517	<i>MOQ-E: THE MOSQUITO ERADINIZER</i>	Patent application filed	Anirban Das
15	27.01.2021	202131003519	<i>MOKSHA-AMRITAM, A MIRACULOUS IMMUNITY THERAPEUTIC</i>	Patent application filed	Anirban Das
16	27.01.2021	202131003530	<i>JUXTA-RING, A PATTERN TO CREATE EFFECTIVE SPIDER-SILK FABRICS</i>	Patent application filed	Anirban Das
17	27.01.2021	202131003536	<i>JEJUNE: AN IMMUNO BOOSTER</i>	Patent application filed	Anirban Das
18	27.01.2021	202131003518	<i>INFANTILE: AN ANTIMICROBIAL AQUEOUS SOLUTION</i>	Patent application filed	Anirban Das
19	27.01.2021	202131003532	<i>IMMUNO-CO: A THERAPEUTIC FOR CLEANSING HIGH TOXICITY</i>	Patent application filed	Anirban Das
20	27.01.2021	202131003523	<i>HEAL-DESTINY: A ROUTE TO HEALTHY CLOSED SPACES</i>	Patent application filed	Anirban Das
21	27.01.2021	202131003525	<i>GREENY, AN ARTIFICIAL LEAF TO CLEANSE THE AIR AND SAVE OXYGEN DEFICIT ZONES</i>	Patent application filed	Anirban Das
22	27.01.2021	202131003531	<i>FANTASY-LAND: HEALING THE LITHOSPHERE</i>	Patent application filed	Anirban Das
23	27.01.2021	202131003521	<i>Exilr-Prime: A multi-purpose edible sterilizer for cleansing body inside out</i>	Patent application filed	Anirban Das
24	27.01.2021	202131003526	<i>DELTA:RE, AN FLAVONOID BASED IMMUNITY BOOSTER</i>	Patent application filed	Anirban Das
25	27.01.2021	202131003533	<i>BOUND-ROSE: THE STRONGEST TECHNIQUE TO ENERGY HEALING</i>	Patent application filed	Anirban Das
26	27.01.2021	202131003510	<i>AZURE, AN ARTIFICIAL LEAF TO SAVE MARINE ECOSYSTEMS</i>	Patent application filed	Anirban Das



27	27.01.2021	202131003581	<i>AVYATHI, A NEW DEFINITION TO OXYGEN CREATION AND FUEL PRODUCTION IN SPACE</i>	Patent application filed	Anirban Das
28	27.01.2021	202131003588	<i>ARISTA: A THERAPEUTIC FOR SAFE AND PAINLESS MONTH</i>	Patent application filed	Anirban Das
29	27.01.2021	202131003579	<i>ANDROMEDA, A WATER PROGRAMMING TECHNIQUE TO HEAL BODY AND MIND</i>	Patent application filed	Anirban Das
30	27.01.2021	202131003584	<i>AMUN &amp; ANAN, A RING FOR MEDICAL DIAGNOSIS IN EXIGENCY AND COMMUNIQUE</i>	Patent application filed	Anirban Das
31	27.01.2021	202131003582	<i>AQUAPONICS USING ARDUINO BASED SMART CULTIVATION SYSTEM FUNCTIONING WITH RENEWABLE SOLAR ENERGY</i>	Patent application filed	Anirban Das
32	27.01.2021	202131003587	<i>INTELLIBIN: INTELLIGENT BIN WITH CREDIT POINT INTEGRATION</i>	Patent application filed	Anirban Das
33	27.01.2021	202131003583	<i>FOODOPE: THE DIGITAL INDIA RATION ATM.</i>	Patent application filed	Anirban Das
34	27.01.2021	202131003594	<i>SUJALAM: A MOBILE AQUA DECONTAMINATION DEVICE</i>	Patent application filed	Anirban Das
35	27.01.2021	202131003580	<i>A SOUND DETECTION DEVICE FOR DEAF THROUGH MASTOID BONE CONDUCTION</i>	Patent application filed	Anirban Das
36	27.01.2021	202131003592	<i>An Intelligent Helmet to detect toxic, flammable, suffocating gases and heat hazards in under earth mines</i>	Patent application filed	Anirban Das
37	27.01.2021	202131003593	<i>Nodal Wireless Communication System for Monitoring Environmental Data Fluctuations in Underground Mines</i>	Patent application filed	Anirban Das
38	27.01.2021	202131003585	<i>RAKSHAK: A PRECAUTIONARY DEVICE TO PROTECT THE COMMON MAN</i>	Patent application filed	Anirban Das

39	27.01.2021	202131003595	<i>Carefree Sole, a multi medicated waterproof device, triggered to stimulate foot nerve points for treatment and relief through vibrator motors</i>	Patent application filed	Anirban Das
40	27.01.2021	202131003577	<i>PhoeniX: A SMART DEVICE TO PREVENT ELECTROCUTION FROM FALLEN ELECTRIC POSTS</i>	Patent application filed	Anirban Das
41	27.01.2021	202131003590	<i>THE GABINETTO: AN NANO INTELLIGENT SANITARY HYGIENE DEVICE</i>	Patent application filed	Anirban Das
42	20.05.2019	201911019831	<i>A novel approach to realize business profit on the basis of linear dependency, exponential growth and moving average</i>	Published	Anirban Das
43	30.10.2019	201931043975	<i>RYO, an intelligent rover to send stress signals in emergency through 360 degree single hemispheric surveillance</i>	Patent application filed	Anirban Das
44	30.10.2019	201931043976	<i>VRTRA JABBERWOKY, an Intelligent hexa-copter to identify individuals through DNA and Tissue classification</i>	Patent application filed	Anirban Das
45	30.10.2019	201931043977	<i>An MIOT based Technique to detect the Probability of Brain Cancer through Extraction, Isolation And PCR</i>	Patent application filed	Anirban Das
46	30.10.2019	201931043978	<i>A tri folded Intelligent System to pre-monitor and predict tsunami, flood and earthquake based disasters and guide safer directions prior to occurrence</i>	Patent application filed	Anirban Das
47	30.10.2019	201911043980	<i>A decentralized system to rescue victims from natural and manmade post disasters through DTN, Offline Route Builder and Tracker</i>	Patent application filed	Anirban Das

48	06.01.2021	2020104352	<i>FUTURE SUMMER TEMPERATURE AVERAGE PREDICTION FROM AIR TEMPERATURE RATE DATA</i>	<b>AUSTRALIAN PATENT GRANTED</b>	Anirban Das
49	25.11.2019	201911048042	<i>Security and computational time complexity analysis of RSA with novel approach of variability concept of key</i>	Patent application filed	Anirban Das
50	20.01.2020	202011002303	<i>A Method for Security Enhancement of Diffie-Hellman Key Exchange Protocol</i>	Patent application filed	Anirban Das
51	24.02.2020	202011007658	<i>A technique for implementing security protocol using variable key for Diffie –Hellman Key exchange, arbitrated protocol and cipher using imaginary variable concept</i>	Patent application filed	Anirban Das
52	05.05.2020	202011019051	<i>A technique for implementing security protocol using variable key in context to key sequence, curves and AES</i>	Patent application filed	Anirban Das
53	11.08.2020	202041034535	<i>IoT and Sensors Based System and Method for Artificial Kidney</i>	Patent application filed	Anirban Das
54	24.04.2021	202131019215	<i>OPALBLUE: PRESERVING NATURAL WATER BODIES CHEMICALLY, PHYSICALLY AND ECOLOGICALLY</i>	Patent application filed	Anirban Das
55	24.04.2021	202131019216	<i>PsychED: A Medical Device for Healing psychological traumas and Issues</i>	Patent application filed	Anirban Das
56	24.04.2021	202131019217	<i>Titanoboa: An Outer Space Thermal Protection System (OSTPS)</i>	Patent application filed	Anirban Das
57	21.04.2021	2021101252	<i>Localization method using integrated sensors in autonomous scrubbing robots for industrial cleaning</i>	<b>AUSTRALIAN PATENT GRANTED</b>	Anirban Das
58	31.05.2021	202141024307	<i>System and Method to detect fake profiles in Social Media</i>	Published	Anirban Das

59	16.06.2021	202141026824	<i>Sensor Based Intelligent Robotic Arm to Vaccinate People Against COVID-19</i>	Published	Anirban Das
60	24.06.2021	202141028360	<i>Smart Protective Personal Equipment (PPE Kit) for Healthcare Workers during COVID-19 pandemic</i>	Published	Anirban Das
61	03.07.2021	202111029975	<i>Sensor Based Artificial Nervous System to assist Paralyzed People</i>	Patent application filed	Anirban Das
62	16.06.2021	2021102531	<i>Three Dimensional wind, airspeed calculation, and prediction method for aerial drones using deep learning</i>	<b>AUSTRALIAN PATENT GRANTED</b>	Anirban Das
63	21.07.2021	202141032739	System and Method for performing Secure Transactions of Digital Cryptocurrencies using Blockchain Technology	Patent application filed	Anirban Das
64	27.01.2021	202131003539	<i>ISOAP: NO-TOUCH I.O.T SOAP DISPENSER SYSTEM</i>	Patent application filed	Subhalaxmi Chakraborty
65	27.01.2021	202131003537	<i>SMART PORTABLE LOCK WITH EMBEDDED SECURITY AND ALERTING SYSTEM</i>	Patent application filed	Bipasha Mukhopadhyay
66	26.04.2019	201931016807	<i>ELECTRIC TWO-WHEELER DELIVERY VEHICLE WITH SECURE DELIVERY BOX</i>	Patent application filed	NA
67	13.05.2016	201631012538	<i>PHYSICAL DESIGN APPROACH OF A NOVEL ARCHITECTURE OF A JUNCTION-LESS TRANSISTOR HAVING HIGH K-SPACERS</i>	First Examination complete	Dr.Rajiv Ganguly
68	17.03.2017	201631027479	<i>IMPLEMENTATION OF SILICON-ON-INSULATOR(SOI) BASED POWER JUNCTION-LESS TRANSISTOR DEVICE SWITCHING IN SWITCH MODE POWER SUPPLY(SMPS) CIRCUIT.</i>	Published	Dr.Rajiv Ganguly
69	26.04.2019	201931016810	<i>MICROCONTROLLER BASED DESIGN OF HOME CLEANING ROBOT</i>	Patent application filed	Piyali Mukherjee
70	14.05.2019	201931019095	<i>SIMULATION BASED DESIGN OF HOME CLEANING ROBOT</i>	Patent application filed	Piyali Mukherjee

71	14.05.2019	201931019094	<i>SMART STREET LIGHT USING ARDUINO</i>	Patent application filed	Sohom Chakraborty
72	26.04.2019	201931016808	<i>LOW-COST PLASTIC COLLECTOR AND INSTANT MONEY RETURN MACHINE</i>	Patent application filed	Dr. Tanusree Roy
73	14.05.2019	201931019093	<i>IOT BASED INDUSTRIAL SECURITY SYSTEM USING ARDUINO</i>	Patent application filed	Nilanjan Byabarta, Prakash Banerjee
74	15.06.2018	201831015427	<i>ELECTROMAGNETIC ALTERNATOR ENGINE/ELECTRICAL</i>	Published	NA
75	26.04.2019	201931016809	<i>AUTOMATION &amp; IOT BASED SMART GARDENING AND IRRIGATION SYSTEM FOR GROWING PLANTS</i>	Patent application filed	NA
76	16.03.2020	202031011165	<i>WOMEN SAFETY DEVICE USING ESP32CAM</i>	Patent application filed	Dr. Sandip Mandal
77	24.07.2021	202141033317	<i>SENSOR BASED INTELLIGENT HAND GLOVES FOR HEALTHCARE PROFESSIONALS FOR USE DURING COVID-19 PANDEMIC</i>	Patent application filed	Anirban Das

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## Summary:

<b>Departments</b>	<b>Filed/Published/granted patents</b>
ECE	7
CSE	4
BioTech	4
CA	58
BSH	4

**Testing  
&  
Consultancies  
(June 2020 to July 2021)**

**Consultancy**

Sl. No.	Department	COMPANY NAME	MATERIAL	TESTS	ORDER
			RECIVED ON	COMPLETED ON	AMOUNT
1	Civil Engg	C. E. Testing Company Pvt. Ltd.	11th March, 2020	16th March, 2020	<b>43,660.00</b>
2	Civil Engg	C. E. Testing Company Pvt. Ltd.	25th June, 2020	6th July, 2020	<b>75,520.00</b>
3	Civil Engg	C. E. Testing Company Pvt. Ltd.	19th November, 2020	23rd December, 2020	<b>5,664.00</b>
4	Civil Engg	C. E. Testing Company Pvt. Ltd.	5th January, 2021	14th January, 2021	<b>25,960.00</b>
			<b>Total Testing Work Executed of Amount</b>		<b>1,50,804.00</b>

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# **Start Up Activities**

## **(Since 2016 onwards)**

## Startup Projects

Sl. No.	Name of the start up	Nature of start up	Year of Commencement	Name of the promoters
1	IMCREET	Technology Business	2018	Avishek karar
2	Robostalkers Automation and Tech. Solutions	Technology Business	2018	Sabyasachi Ganguly
3	RMB Technologies	Technology Business	2018	Sudhanshu Shekhar, Monalisha Nasreen
4	Rotation	Technology Business	2018	Sabyasachi Ganguly
5	Bluemug Shop	Technology Business	2018	Arya Sarkar
6	Better India	Technology Business	2018	Rounak Bhuwlka
7	Baskett.me	Technology Business	2017	Deepayan Roy
8	Illicium motors pvt ltd	Technology Business	2017	Rahmat Ali
9	Derivative.io	Technology Business	2018	Sangramjit Maity
10	Midnight Reapers	Technology Business	2018	Nivedita Chatterjee
11	Yavakrida Kara	Biotech based startup	2018	Asmeeta Sirkar
12	Cover Story	Technology Business	2016	Ravi kr. Singh
13	Hash You are Awesome	Technology Business	2017	Koushik Parui
14	Acrotic Services	Technology Business	2018	Arijit Dey
15	Printerwala	Technology Business	2018	Kaushal Aggarwal
16	Swaranya	Innovative ornamental design	2018	Sawoni Biswas
17	Nxstudios	Technology Business	2018	Vinay Aggarwal
18	Quadcober Sports	Innovative sports business	2018	Bodhisatya Banerjee
19	Tech2sports online store	Technology Business	2018	Rahul Roy
20	Techno Sports	Technology Business	2018	Anik Bhar
21	Cloud9 Reprographic Center	Technology Business	2018	Ashish Kumar Gupta
22	Niptustechpark Pvt. Ltd.	Technology Business	2018	Tamimee Chist
23	Shattak	Technology Business	2017	Orunayan Bhattacharya
24	AQ INC	Technology Business	2019	Sudipta Sarkar

25	Assembly Of Traders and Merchants Kolkata (ATM-Kol)	Technology Business	2018	Sagnik Lala
26	thewav	Technology Business	2018	Abhishek Madhu
27	RudraDhyanaLingam	Biotechnolofy based startup	2019	Nivedita Chatterjee
28	WRITE4U	Technology Business	2018	Anirban Sanyal
29	ZAUBA CORP	Technology Business	2018	Sabyasachi Ganguly
30	FLAPPIFY	Technology Business	2018	Zohaib Kibria
31	MAKS CUBE	Technology Business	2018	Saptorshe Das
32	SCIENOVEX	Technology Business	2018	Subhajit Ghosh
33	Abhishek SoftTech OPC Pvt Ltd	Technology Business	2018	Abhishek Madhu

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