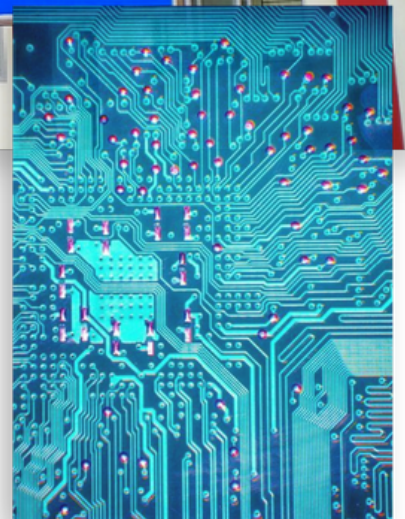


ORIHONA



COMPUTER SCIENCE & ENGINEERING

"Keep your face always toward the sunshine,
and shadows will fall behind you."

— Walt Whitman

MESSAGE FROM THE DIRECTOR'S DESK



It gives immense pleasure to know that the Department of Computer Science and Engineering of Dibrugarh University Institute of Engineering and Technology (DUIET) is going to publish its 4th version of Departmental Newsletter ORIHONA for the year 2022.

Newsletters of any academic department is the platform where the students and teachers can contribute their ideas of Innovation, Academic and Teaching Innovation Technique, Entrepreneurial Activities which in turn send strong message to the society at large and the Academic and Corporate world in general. I strongly believe that this issue of Newsletter "ORIHONA" will definitely focus on the aforesaid areas of academic and innovation and will encourage the students to think and young technocrats may express their views on the recent development in the Technical Education in the Era of 4th Industrial Revolution. I think this Newsletter will provide some space towards the growth of 21st Century skills required for the Computer Science Engineers in particular and the whole Engineering Community in general.

I wish that this issue of Newsletter would be successful in achieving these objectives. My best wishes for the entire endeavor.

Dr. Mukul Chandra Bora
Director,

Dibrugarh University Institute of Engineering & Technology
Dibrugarh University, Assam, India

MESSAGE FROM THE HOD'S DESK



I would like to congratulate the students of Department of Computer Science & Engineering (CSE), D.U.I.E.T. for their efforts in publishing the newsletter which showcases the various Departmental activities. It also gives me immense pleasure to state that the students despite their classes and normal activities have come forward to adorn the newsletter with such interesting editorials and creative writings. This newsletter also narrates the academic and editorial excellence of the students but also their willingness to venture innovative ideas on diverse domains besides the course curriculum.

My gratitude is also extended towards the amiable faculty of this Department who have keenness towards innovative teaching ideas and always remain proactive in taking initiatives to support students in various activities which help them in their learning process. The newsletter is also a magnificent idea to recall and rejoice the achievements achieved by this Department.

I extend my best wishes to the entire team of editors for this brilliant newsletter.

**DR. NOMI BARUAH HOD,
CSE DEPARTMENT, D.U.I.E.T**

EDITORIALS DESK

CSE, DUIET warmly welcomes you to the fourth edition of its e-Newsletter 'Orihona,' 2022. Through the pages of 'Orihona,' one can find the events, activities, achievements, and celebrations of the Department of Computer Science, DUIET throughout the year.

The Editorial's Desk is thankful to all those who contributed to this edition and hopes that going through this newsletter is enjoyable for you.
Happy Reading..!

EDITORIALS TEAM



"Learning does not come only from receiving information, but also through sharing and deep reflection."

KAUSHIK DAS
DEPT. OF CSE, DUIET DU
FACULTY COORDINATOR



It gives me immense pleasure to note that response to this newsletter of our department Orihona V 4.0 has been overwhelming. The widespectrum of articles in different sections gives me a sense of pride that our students and faculties possess creative potential and original thinking in ample measures. I applaud the contributors for their stimulated thoughts and varied hues in articles contributed by them. Commendable job has also been done by the members of Editorial Board in planning for and producing the Newsletter. My congratulations to the whole team who took the responsibility for the arduous task most effectively. I am hopeful that this small piece of technical work shall not only develop the taste for reading among students but also develop a sense belonging to the institution as well.

DR. SUDIPTA MAJUMDER
DEPT. OF CSE, DUIET, DU
FACULTY COORDINATOR

ORIHONA

“YOU MUST BE THE CHANGE YOU WISH TO SEE IN THE WORLD.” – GANDHI



ABOUT THE DEPARTMENT

The Department of Computer Science & Engineering was started in August 2009 with AICTE recognition. The department has a team of six highly qualified, experienced, and dedicated faculty and two staff members to impart quality technical education. The department caters to the latest requirements and demands of the IT Industry and aims at providing a valuable workforce for the Indian Silicon Valley.

The department has high-speed broadband internet connectivity at all the labs which are necessary to complete the different practical ventures. The department has been facilitated under a voluminous library located at the Core building of DUIET, which caters to the needs of students, research scholars, and faculty.

WHY THE NAME "ORIHONA"?

"ORIHONA" IS AN ASSAMSESE WORD WHICH MEANS CONTRIBUTION. ORIHONA IS AN INITIATIVE TO CONTRIBUTE TO THE GROWTH OF SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS AND HIGH-TECH MANUFACTURING.

VISION

TO BUILD A STRONG RESEARCH AND TEACHING ENVIRONMENT THAT RESPONDS SWIFTLY TO THE CHALLENGING PROBLEMS OF THE HUMANITY.

MISSION

- PROVIDE QUALITY UNDERGRADUATE EDUCATION IN BOTH THE THEORETICAL AND APPLIED FOUNDATIONS OF COMPUTER SCIENCE & ENGINEERING AND TRAIN STUDENTS TO EFFECTIVELY APPLY THIS EDUCATION TO SOLVE REAL-WORLD PROBLEMS THUS AMPLIFYING THEIR POTENTIAL FOR LIFELONG HIGH-QUALITY CAREERS AND GIVE THEM A COMPETITIVE ADVANTAGE IN THE EVER-CHANGING AND CHALLENGING GLOBAL WORK ENVIRONMENT.
- CONDUCT RESEARCH TO ADVANCE THE STATE OF THE ART IN COMPUTER SCIENCE AND INTEGRATE RESEARCH RESULTS AND INNOVATIONS INTO OTHER SCIENTIFIC DISCIPLINES
- PROVIDE COMPUTER SCIENCE EDUCATION AND TRAINING TO STUDENTS IN OTHER DEPARTMENTS AT DUIET.
- PROVIDE COMPUTER SCIENCE EXPERTISE TO THE PEOPLE OF THE NATION



OUR COURSES

**"EDUCATION IS NOT THE LEARNING OF FACTS,
BUT TRAINING OF THE MIND TO THINK" -
ALBERT EINSTEIN**

THE DEPARTMENT OF CSE OFFERS B.TECH IN COMPUTER SCIENCE AND ENGINEERING WITH AN INTAKE CAPACITY OF SIXTY STUDENTS PER YEAR. THE PROGRAM OBJECTIVES FOR THE COURSE ARE :

- DEVELOP ENGINEERED SOLUTIONS THAT ARE WELL-CONCEIVED AND CAREFULLY IMPLEMENTED TO MEET PUBLIC AND PRIVATE SECTOR NEEDS.
- CONTRIBUTE EFFECTIVELY TO ORGANIZATIONS AS LEADERS AND/OR TEAM MEMBERS.
- FOSTER PERSONAL AND ORGANIZATIONAL SUCCESS IN A DYNAMIC, GLOBALIZED PROFESSIONAL ENVIRONMENT.
- IMPROVE SOCIETY BY APPLYING HUMANISTIC VALUES TO THEIR PROFESSIONAL AND CIVIC RESPONSIBILITIES.
- EARN ADVANCED DEGREES IN COMPUTER SCIENCE OR PROFESSIONAL CREDENTIALS.
- CONTRIBUTE TO THE DEVELOPMENT OF THE NEXT GENERATION OF INFORMATION TECHNOLOGY EITHER THROUGH RESEARCH OR THROUGH PRACTICE IN A CORPORATE SETTING.
- BRING CRITICAL INTELLIGENCE, FORMED THROUGH THE UNIVERSITY'S COMMITMENT TO LIBERAL HUMANISTIC LEARNING, TO THE DEVELOPMENT OF INFORMATION TECHNOLOGY.

MAJOR COURSES

Data and File Structures

Design & Analysis of Algorithms

Computer Architecture & Organization

Formal Language and Automata
Theory

Database Management Systems

Operating System

Computer Networks

Software Engineering

Artificial Intelligence

Compiler Design

Cloud Computing

Natural Language Processing

Neural Networks and Deep Learning

Cryptography and Network Security

Internet of Things

Discrete Mathematics

NEW COURSES OFFERED

B.TECH IN CSE WITH MINOR IN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

RESEARCH DEGREE OFFERED

PHD IN COMPUTER SCIENCE AND ENGINEERING

CSE TALKS V1.0

SPEAKERS:



Prerana Hazarika
Presales Consultant,
Wipro Limited
DUIET Batch 2010-14



Anurag Narayan Sarmah
Technology Analyst,
Infosys
DUIET Batch 2014-18

DATE :

27 MAY, 2022

Department of CSE, DUIET in association with Alumni Cell, CSE, DUIET, Computer Society of India, T&P Cell, CSE, DUIET organized CSE TALKS V1.0. Two Passed Out seniors Prerana Hazarika and Anurag Narayan Sarmah of the Department were invited to this occasion. Starting with a welcome speech from faculties and HOD, the alumnus shared their memories in the institution and also shared valuable knowledge from their experience in life to help the current students in building successful careers in the future. The whole event became a grand success as everyone enjoyed and gained knowledge throughout the event.



55TH ENGINEER'S DAY

DATE :
15 SEPTEMBER, 2022

“If people are doubting how far you can go, go so far that you can't hear them anymore.”
—Michele Ruiz

Dibrugarh University Institute of Engineering and Technology celebrated the 55th Engineers Day in collaboration with the Institution of Engineers (India) Upper Assam Local Centre, in presence of higher authorities from Oil India Ltd., Duliajan, and Assam Gas Corporation Ltd.



SANGANAK

DATE :
15 SEPTEMBER, 2022

“All our dreams can come true, if we have the courage to pursue them.”

WALT DISNEY



"SANGANAK", the coding club of DUIET was inaugurated on the occasion of the 55th Engineer's Day. The coding club will operate with the prime objective of making the students of DUIET coding ready for the future. Many exciting events have been planned under the banner of the club, including coding competitions, interview discussions, and interactions with industry experts. The club will adhere to focus on the 4th and 8th and 9th SDGs by the UNDP United Nations Development Program, which are Quality Education; Decent Work and Economic Growth; and Industry, Innovation, and Infrastructure respectively.



- Organizing coding competitions and hackathons.
- Promoting various domains of programming and design.
- Understanding the working of global forums (Like Stack Overflow)
- Motivate students towards competitive programming and help them improve their coding skills.
- Introduce students to new coding concepts and major technical topics like machine learning, deep learning, programming for computer vision, robot programming, embedded systems programming, programming for cyber security etc.

Achievements

The IQAC (Internal Quality Assurance Cell) of Dibrugarh University has felicitated Mr Abhijit Boruah an Assistant Professor of CSE Department DUIET Dibrugarh University for his dedication, diligence and perseverance towards excellence in the field of research and innovation. This has made the stakeholders of the Department feel proud.



Gate 2022 qualified students

Arjun Gogoi

Jyotirmoy Kalita

Abinash Chetia

Other Achievements:

1) Shatabdi Kaushik, Dhruvansu Prabal Goswami, and Hillol Upamanyu presented a paper with the title "Learning Management System" at the 3rd International Conference on Engineering and Advancement in Technology 2022, organized by Malla Reddy Institute of Engineering and Technology in association with the Organization of Science and Innovative Engineering and Technology, Chennai, India, and IEEE. The project is guided by Dr. M Tiken Singh, Assistant Professor, DUIET.

2) "A Survey on the latest intrusions & their detection systems in IoT-based networks", a paper from student project work has been selected for presentation in the 8th International Conference on Computers, Management & Mathematical Sciences (ICCM2022).

3) Jyotishmaan Bora, Saine Dehingia, Anuraag Anuj Chetia, and Dikhit Gogoi (CSE batch 2018-22) got the opportunity for presenting their B.Tech final year project entitled "Real-time Assamese Sign Language Recognition using MediaPipe and Deep Learning" in the International Conference on Machine Learning and Data Engineering (ICMLDE) 2022, held at UPES, Dehradun. The project was carried out under the supervision of Abhijit Boruah. The proceedings will be published in Elsevier's Procedia Computer Science journal.



4) Rohan Alom, Anirban Mazumdar, George Basumatary, Bidisha Baruah (CSE batch 2018-22) got the opportunity for presenting their B.Tech final year project entitled "Analysis of Seismic Data Using Partition Based Clustering Techniques" in the 2022 IEEE GLOBAL CONFERENCE ON COMPUTING, POWER AND COMMUNICATION TECHNOLOGIES (GlobConPT)" held at at India Habitat Centre, New Delhi. The project was carried out under the supervision of Mr. Rabinder Kr. Prasad.

2021 Varsity week achievements



Outdoor games:

- > Cricket (boys) - 2nd
- > Kabbadi (boys) - 2nd
- > Kho-kho (boys) - 2nd, best chaser
- > Basketball (boys) - 1st
- > Basketball (girls) - 3rd
- > Volleyball (boys) - 2nd
- > Football (boys) - 2nd
- > 100 meters (girls) - 2nd
- > 200 meters (girls) - 3rd
- > Discuss Throw - 3rd
- > Triple Jump - 3rd
- > 4x100 Relay (boys) - 3rd
- > 400 meters (boys) - 3rd

Gymnasium:

- > Weight lifting (boys, 55 kg) - 1st
- > Weight lifting (boys, 61 kg) - 1st
- > Weight lifting (boys, 81 kg) - 2nd
- > Weight lifting (girls, 64 kg) - 1st
- > Weight lifting (girls, 71 kg) - 2nd
- > Arm Wrestling (boys, under 57 kg) - 1st
- > Arm Wrestling (boys, under 70 kg) - 1st
- > Arm Wrestling (boys, under 78 kg) - 3rd
- > Arm Wrestling (boys, under 86 kg) - 1st
- > Arm Wrestling (boys, above 86 kg) - 2nd
- > Arm Wrestling Champion of champions
- > Arm Wrestling (girls, under 50 kg) - 3rd
- > Power lifting (boys, 59 kg) - 3rd
- > Power lifting (boys, 74 kg) - 3rd
- > Power lifting (girls, 50 kg) - 3rd
- > Power lifting (girls, 57 kg) - 2nd
- > Power lifting (girls, 69 kg) - 2nd
- > Power lifting (girls, 76 kg) - 3rd

52nd Varsity Week,
Dibrugarh University
DUIET Prize Tally - Page 1

2021 Varsity week achievements



Indoor games:

- > Carrom doubles (boys) - 3rd
- > Badminton (boys, singles) - 3rd
- > Badminton (boys, doubles) - 2nd
- > Badminton (girls, doubles) - 2nd
- > Table Tennis (boys, doubles) - 3rd
- > BGMI - 2nd

Cultural:

- > Folk dance - 1st
- > Creative dance - 1st
- > Creative dance solo - special mention
- > Flute - 2nd
- > Khol - 2nd
- > Dhol - 2nd
- > Jyoti Sangeet solo - 2nd
- > Duet song - 3rd
- > Mimicry - 1st

Literary, Fine arts, Magazine:

- > Stone painting - 2nd
- > Selfie Stand - 1st
- > Micro story - 3rd
- > Best literary person - 1st
- > Hand magazine - 3rd

Debate and symposium:

- > Quiz - 2nd
- > English news reading - 2nd
- > Best debater - 3rd
- > Best team (debate) - 3rd
- > Seminar - 2nd

Common room competitions:

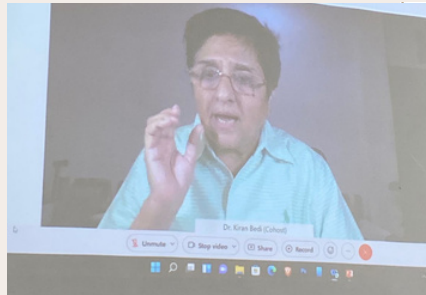
- > Mr. DU - 2nd & 3rd
- > Mr. Physic - 3rd
- > Miss physic - 1st & 3rd

Clean department: 3rd

52nd Varsity Week,
Dibrugarh University
DUIET Prize Tally - Page 2

National Service Scheme

1. Mega webinar organized by NSS DUG UNIT on theme YOUTHS - FUTURE BACKBONE OF OUR COUNTRY at Indira Miri Conference Hall, Dibrugarh University on 19 March, 2022. Guest of honour : Dr. Kiran Bedi Ma'am.



2. Observance of INTERNATIONAL YOGA DAY on 14th May, 2022 at Bishurabha Rangamancha, Dibrugarh University.



3. A new session on GROOMING LEADERSHIP where Dr. Kiran Bedi Ma'am came to address first time live in Dibrugarh University as a Guest of honour on 4th June, 2022.



4. SWACHHATA, 2022 organized by NSS DUG UNIT in collaboration with Dibrugarh Municipal Board on 19th Oct, 2022.



Articles

THE ERA OF THE FOURTH INDUSTRIAL REVOLUTION

"Industry 4.0" is the consequence of technological advancements in the last decades. The fourth industrial revolution refers to a new phase that focuses on artificial intelligence, smart sensor networks, real-time data and big data, and automation. This industrial revolution is a new wave that will redefine businesses around the globe. The fourth industrial revolution focuses on cutting-edge technologies like artificial intelligence and blockchain to improve businesses. Artificial intelligence plays a key role in Industry 4.0 as it will improve automation. AI is transforming the maintenance sector.



AI-powered maintenance technology is called predictive maintenance. In this era, we can predict when an industry asset will require maintenance. The exciting thing is that we don't have to wait until the failure of the asset. This industrial era has transformed traditional record keeping into a new revolution in record keeping. With the help of blockchain, one can buy things on the internet. Cryptocurrency and NFT are the new trends of this era. The decentralisation concept was introduced with the help of blockchain technology. The blockchain concept helps to develop decentralised features, which means there will be no central server or database. We will be able to transact without the help of third parties. With decentralization, transparency will be made clear. We are living in the era of the metaverse and web3.0. In the near future, records of schools and colleges will be stored on blockchain. The whole central server concept will be replaced by decentralization. In the fourth industrial revolution, there is a possibility that banks will be replaced by decentralised technology. Big companies are working on mixed reality and virtual reality concepts for artificial environmental creation. In the near future, with the help of VR, business meetings will be held in a virtual environment. In this era, people are buying artificial lands in the metaverse that don't even exist in real life!

SANKHAPANI NEOG
CSE 5TH SEM STUDENT

WHAT KINDS OF ENTREPRENEURIAL ACTIVITIES ARE AVAILABLE TO STUDENTS TODAY?

Courses that emphasize time management, collaboration, and communication are essential for students interested in entrepreneurship. As a matter of fact, young entrepreneurs need to be well-versed in finance, negotiation, active listening, and leadership; Teens shouldn't, however, limit their choices to the classroom. In fact, a lot of the time, non-traditional entrepreneurial activities for students help young people prepare for college, careers, and life.



The four entrepreneurial pursuits that students enjoy both at school and at home will be examined in this article:

Entrepreneurial Activities for Students Stir the Imagination When entrepreneurs combine creativity with fortitude and leadership, they forge paths. Other entrepreneurial activities for students include: Opportunities to learn critical thinking, problem-solving, communication, and leadership skills should be taken advantage of by students interested in entrepreneurship. Students invest in their future by participating in entrepreneurial activities.

Take into consideration the following entrepreneurial activities for students as a young visionary.

1. Nontraditional Courses:

While entrepreneurship courses emphasize important skills, students should also take a few nontraditional courses that require problem-solving, solution visualization, and teamwork.

2. Entrepreneurial Clubs:

Entrepreneurial clubs and organizations frequently offer students practical opportunities to apply the concepts they have learned in class to enhance the learning environment in the classroom. Students' motivation to put their knowledge into practice and increase in proficiency and confidence is bolstered by entrepreneurial activities for students because they enhance learning.



3.Athletic Teamwork:

Typically, entrepreneurs achieve success through teamwork; To put an idea into action, the entrepreneur requires the expertise of knowledgeable coworkers. They need to collaborate in order to "read" their rival businesses, anticipate consumer demand, and respond accordingly. As a result, sports teams provide the ideal environment for some entrepreneurs to develop; Athletes need to learn how to cooperate with one another, read their opponents, anticipate their needs, and respond appropriately. The fact that more than half of female executives were once student athletes is not surprising.

4.Artistic Extracurriculars:

Students should look for ways to combine their passion for business with creative endeavors because entrepreneurship spans nearly every field of interest. Young musicians, performers, or visual artists, for example, may give entrepreneurial projects a new, creative perspective by encouraging team members to take more risks and become more resourceful.

By applying organizational principles to creative activities that demand active listening, solidarity, and respect, entrepreneurship students who participate in artistic extracurricular activities can also improve their critical thinking.

Students who are entrepreneurial gain self-assurance and form long-lasting relationships as they continue to work toward their objectives. In fact, students can participate in entrepreneurial activities outside of the classroom, including hobbies and extracurricular pursuits.

UTKARSH KONWAR
3RD SEM CSE STUDENT

INNOVATION

In the 21st century the world is leading towards the era of innovations with creativity. Be it the mixer grinder or the human robots, we can see its effects everywhere in our surroundings. The word 'innovation' simply means the practical implementation of ideas that result in the introduction of new goods or services or improvements in offering goods or services. However innovation and creativity are two related words that stand side by side. Without creative minds on board a piece of work cannot be curved into an innovation. Creativity allows us to think out of the box and helps us to curve the idea into an useful service that can profit the mankind and can lead to innovation. It is said that "innovation isn't a mysterious box, it can be simple small tweaks to existing processes, products or interactions". It is to be noted that innovation is related to but not as same as invention, as innovation makes impact on society and surroundings that involves practical implementation of the invention. There are various phases of innovations; these includes 1) idea generation, 2) problem solving and 3) implementation. When we say innovation and invention are related but not the same, it means that by the time one reaches the phase 2 of innovation, one has the invention but until it's not implemented in order to have an economic impact, one didn't have an innovation. Thus, innovation can lead to smart and sustainable world.



PRIYAKSHI BORDOLOI
CSE 5TH SEM STUDENT

International/National Journals & Conference Proceedings

Publications: Year-2022

International/National Journals & Conferences Proceedings:

1. Arjun Gogoi, Nomi Baruah, "A Lemmatizer for Low-resource Languages: WSD and Its Role in the Assamese Language", *Transactions on Asian and Low-Resource Language Information Processing*, 2022.
2. Singh M. Tiken, Surajit Borkotokey (2022) A Stable Payoff Allocation Protocol for Controlling the Selfishness and Managing the Power Consumption in Mobile Ad Hoc Networks, *Communications in Computer and Information Science (CCIS) series, Springer*
3. Prasad, R. K., Chakraborty, S., & Sarmah, R. (2022). Impact of distance measures on partition-based clustering method: an empirical investigation. In *International Journal of Information Technology. Springer, Singapore*. (SCOPUS Indexed)
4. Abhijit Boruah, Nayan M. Kakoty, Tazid Ali & M. B. Malarvili, "Shape oriented object recognition on grasp using features from enclosure based exploratory procedure", *International Journal of Intelligent Robotics and Applications (Springer)*.
5. Dr. M. Tiken Singh, Prof Surajit Borkotokey, Rachid Ait Maalem Lahcen, Prof Ram N. Mohapatra, "A Generic Scheme for Cyber Security in Resource Constraint Network Using Incomplete Information Game", *Evolutionary Intelligence, Springer*
6. Kaushik Das, Arun Kumar Baruah, "Object Detection on Scene Images: A Novel Approach", *International conference on Machine Learning and Data Engineering (ICMLDE 2022)*, *Procedia Computer Science Journal*, 2022.
7. Sudipta Majumder, Abhijit Biswas, "Optimal MAC scheduling algorithm for time-sensitive applications in multi-UE scenarios in 5G NR mmWave" in *Communications in Computer and Information Science (CCIS, volume 1579)*, *Springer, ISSN 1865-0929(P), 1865-0937(O)*. (SCOPUS Indexed)
8. P. J Cheleng, P.P Chetia, R Das, B. Ch. Singha, S. Majumder, "A Survey on the latest intrusions & their detection systems in IoT-based networks", in *8th International Conference on Computers, Management & Mathematical Sciences (ICCM)*, 29-30 July, 2022
9. Sudipta Majumder, Abhijit Biswas, "Optimal MAC scheduling algorithm for time-sensitive applications in multi-UE scenarios in 5G NR mmWave" in *Computational Intelligence in Communications and Business Analytics (CICBA-2022)*, 7-8 Jan, 2022
10. Jyotismaan Bora, Saine Dehingia, Abhijit Boruah, Anuraag Anuj Chetia, and Dikhit Gogoi "Real-time Assamese Sign Language Recognition using MediaPipe and Deep Learning", *International conference on Machine Learning and Data Engineering (ICMLDE 2022)*, *Procedia Computer Science Journal*, 2022.

International/National Journals & Conference Proceedings

Publications: Year-2021

International/National Journals & Conferences Proceedings:

1. Arjun Gogoi, Nomi Baruah & Rakhee D. Phukan, "Improving Stemming for Assamese Information Retrieval" presented in 11th SRS-2021, held from 07th to 10th January, 2021.
2. Arjun Gogoi, Nomi Baruah, Lakhya Jyoti Nath, "Assamese word sense disambiguation using cuckoo search algorithm", *Procedia Computer Science*.
3. Surajit Borkotokey, Moirangthem Singh, Rachid Lahcen, Ram Mohapatra "A Generic Scheme for Cyber Security in Resource Constraint Network Using Incomplete Information Game", (2021) Joint Mathematics Meetings (JMM), AMS/MAA
4. Singh Moirangthem Tiken., Chakrabarty A., Sarma B., Dutta S. (2021) An Improved On-Policy Reinforcement Learning Algorithm. In: *Soft Computing Techniques and Applications. Advances in Intelligent Systems and Computing, vol 1248. Springer, Singapore.*
https://doi.org/10.1007/978-981-15-7394-1_30
5. Kaushik Das and Arun Kr Baruah, "A Study of Data Processing for Object Recognition in Scene Image using FRCNN: A Smart Grid Technology", in proceedings International Conference on Innovations in Energy Management and Renewable Resources, 5th – 7th February, 2021.
6. Charu Guleria, Kaushik Das, and Aryabartta Sahu, "A Survey on Mobile Edge Computing: Efficient Energy Management System" in the International Conference on Innovations in Energy Management and Renewable Resources, IEEE, 2021.
7. Boruah A, Ali T, Kakoty NM, Malarvili MB. OROnto: An Ontology for Recognition of Grasping Objects. In 2021 IEEE 18th India Council International Conference (INDICON) 2021 Dec 19 (pp. 1-6). IEEE. (Scopus Indexed).
8. M. Kakoty N, Kalita Z, Boruah A, Chittawadigi RG, Saha SK. Development of A Technology Education Programme based on Self-Driven, Self-Learning and Self-Evaluating Approach. In *Advances in Robotics-5th International Conference of The Robotics Society 2021 Jun 30 (pp. 1-5)*. (Scopus Indexed)
9. Nomi Nomi Baruah, Arjun Gogoi, Shikhar Kr. Sarma & Randeep Borah, "Utilizing Corpus Statistics for Assamese Word Sense Disambiguation", In: *Thampi, S.M., Gelenbe, E., Atiquzzaman, M., Chaudhary, V., Li, K.-C (Eds.) Progress in Advanced Computing and Network Communications.* <https://www.springer.com/in/book/9789813369764>
10. S. Majumder, B. Saikia,, "Assessing the effect of different estimation error on DUAL-MRC receiver over HYOT fading channels", ISSN: 2454-3195(O), International Research Journal of Science, Engineering and Technology, Vol-11, Issue -3, Sept, 2021 (UGC). (UGC Indexed)
11. B. Saikia, S. Majumder, "Analysis of performance vulnerability of MAC scheduling algorithms due to SYN flood attack in 5G NR mmWave", ISSN: 2394-5443(P), 2394-7454(O), *IJATEE (Scopus)*, Vol: 8, Issue 82, Sept, 2021 (SCOPUS Indexed)

International/National Journals & Conference Proceedings

Articles/Chapters published in books:

1. Nomi Baruah, Shikhar Kr Sarma, Surajit Borkotokey, “A Single Document Assamese Text Summarization Using a Combination of Statistical Features and Assamese WordNet”, *Progress in Advanced Computing and Intelligent Engineering*
2. Nomi Baruah, Arjun Gogoi, Shikhar Kr Sarma, Randeep Borah, “Utilizing corpus statistics for Assamese word sense disambiguation” ,*Advances in Computing and Network Communications*
3. Manas Jyoti Das, Abhijit Boruah, Jyotirmoy Malakar, and Priyam Bora. **Generating Parking Area Patterns from Vehicle positions in an Aerial Image Using Mask R-CNN.** In *Proceedings of International Conference on Computational Intelligence and Data Engineering*, pp. 201-209. Springer, Singapore, 2021.
4. Prasad, R. K., Chakraborty, S., & Sarmah, R. (2022). **Lockdown Phases and Changing Clusters of Indian States with Respect to Number of Cases of COVID-19.** In *Smart Intelligent Computing and Applications, Volume 2* (pp. 71-84). Springer, Singapore. (SCOPUS Indexed)

INDEPENDENCE DAY CELEBRATION AT CSE DEPARTMENT

As India celebrates Azadi Ka Amrit Mahotsav to commemorate 75 years of India's independence, the Department of Computer Science and Engineering, DUIET, Dibrugarh University themed the cover photo of the departmental official page on the eve of Azadi Ka Amrit Mahotsav on 75 years of Independence and 'Har Ghar Tiranga'.



DIWALI CELEBRATION AT CSE DEPARTMENT



The Class representatives of B.Tech CSE 2018-22 batch Mr. Bibhuti Gogoi and Ms. Saine Dehingia. Just as we go down the memory lane of the last four years; we saw both of you stay strong with all the responsibility that came along your way, be it an event related to seminars, meetings and not to forget your indispensable cooperation during the period of COVID-19, that too with a smile on your faces, no matter the load of work or even when we lashed out on you many a times.

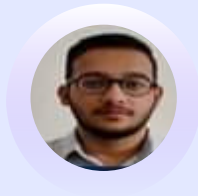
We wish a lots of success to both of you for your future endeavours. Be the leaders of tomorrow!!



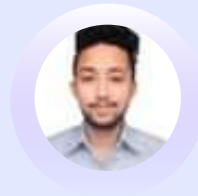
PLACEMENT OF RECENT STUDENTS



Dikhit Gogoi
Capgemini



Dhurbangshu P. Goswami
Wipro



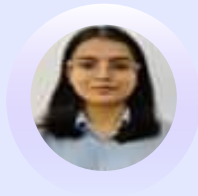
Dushmanta M. Kalita
Wipro



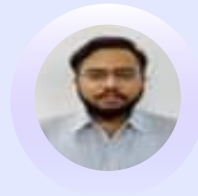
Hillol Upamanyu
ADP



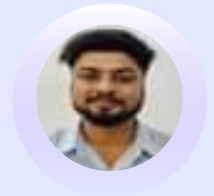
Saini Dehingia
CSS CORP



Shatabdi Kaushik
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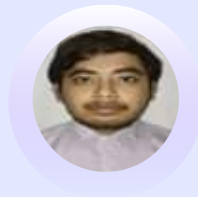
Sourav Gupta
Wipro



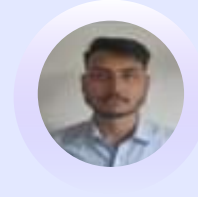
Subhankar Ghosh
Capgemini



Bidhan C Singha
ITC Infotech



Pawanmohan Gogoi
Infosys



Anirban Mazumdar
Wipro

CAMPUS RECRUITERS OF PAST YEARS



The outgoing Batch 2022 with their mentors
of Dept of CSE in one frame.



DEPARTMENT OF CSE

“We need to accept that we won’t always make the right decisions, that we’ll screw up royally sometimes—understanding that failure is not the opposite of success, it’s part of success.”

—Arianna Huffington

The Orihona Editorial Team in one frame.



He who would learn to fly one day must first
learn to stand and walk and run and climb and
dance; one cannot fly into flying.
— Friedrich Nietzsche