ORIHONA

COMPUTER SCIENCE & ENGINEERING

"Coming together is a beginning; keeping together is progress; working together is success."
– Edward Everett Hale

2016-20 Batch

DEPARTMENT OF CSE

"Take up one idea. Make that one idea your life — think of it, dream of it, live on that idea. Let the brain, muscles, nerves, every part of your body be full of that idea, and just leave every other idea alone. This is the way to success." –
Swami Vivekananda

FROM THE DIRECTOR'S DESK

I strongly believe that learning through enjoyment produces highest benefit and the same should be adopted to impart education to the young minds.

The Department of CSE is filled with young, energetic, dynamic set of faculty members to maintain a healthy reationship with students. I feel proud to share that most of the alumini of the department are placed in respectable positions in the country and abroad.

It gives me immense pleasure to introduce the Second Edition of the newsletter of the CSE department of DUIET. At the onset, I sincerely thank the editorial board members and the Department of CSE as whole for their wonderful work. We at DUIET work as a team and live as a family.

Prof. P. Bhattacharyya
Director, D.U.I.E.T

"Learning gives creativity, Creativity leads to thinking, Thinking provides knowledge, Knowledge makes you great."

ORIHONA

Your limitation—it's only your imagination.

COMPUTER SCIENCE AND ENGINEERING

"Education is the most powerful weapon which you can use to change the world."
-Nelson Mandela

The Department of Computer Science & Engineering was started in August, 2009 with AICTE recognition. The department has a team of eight highly qualified, experienced and dedicated faculties 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 valuable workforce for the Indian Silicon Valley.

The department has high speed broadband internet connectivity at all the labs which is necessary to complete the different practical ventures. The department has four laboratories including two programming laboratories, one network and and security laboratory and one artificial intelligence laboratory. 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.

HOD'S MESSAGE

      I would like to convey my heartiest greetings to the team of Newsletter Committee of CSE, DUIET for their continuous efforts and dedication in publishing the Departmental newsletter which contains a lot of information of contemporary ideals also sends a message that good things can happen if students are active and creative. From time to time,in the Department,the students showcase a variety of innovative instructional approaches such as workshop to instill a love of learning and build confidence which most importantly inspire students' ability to think critically and creatively, and also to be innovative problem solvers. Hope that such achievements and ideas of students shine perpetually.

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sd /-
Dr. Nomi Baruah
HOD(I/C), CSE Department, D.U.I.E.T
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FACULTY PROFILE

MR. M. TIKEN SINGH

Mr. M. Tiken Singh joined the institute in 2011 as an Assistant Professor in the Department of Computer Science and Engineering . He did his B .Tech in Computer Science and Engineering (with University Gold Medal) from Manipur University And M.Tech in Information Technology (with University Gold Medal) from Tezpur University His area of interest lies in Real Time System and Algorithmic Game Theory.

DR. SUDIPTA MAJUMDER

Dr. Sudipta Majumder has been working as an Assistant Professor in the Department of Computer Science and Engineering since August 2011. He did his B.Tech in Computer Science and Engineering, M. Tech in Information Technology and Ph.D. in Computer Networking from NERIST. His area of interest lies in Computer Network Security and VoD Security System.

MR. KAUSHIK DAS

Mr. Kaushik Das joined the institute in 2011 as an Assistant Professor in the Department of Computer Science and Engineering. He did his B. Tech in Computer Science and Engineering from NIT Silchar and M.Tech in Information Technology from Tezpur University. His areas of interest lies in Information Technolgy (Data Mining) and Computer Vision. He is holding the position of TEQIP-III Coordinator at DUIET.

MR. RABINDER KUMAR PRASAD

Mr. Rabinder Kumar Prasad has been working as an Assistant Professor in Computer Science and Engineering department of DUIET (Since 2011 till present). He did his B. Tech in Computer Science and Engineering from Jorhat Engg. College and M.Tech in Information Technology from Tezpur University. His area of interest lies in Data Mining and Spatial Data Mining Techniques in Networking Field.

FACULTY PROFILE

DR. NOMI BARUAH

Dr. Nomi Baruah joined the institute in 2012 as an Assistant Professor. She completed her B.E. in Computer Science and Engineering from Jorhat Engg. College, M.E in Software Engineering from Thapar University and Ph.D. in CSE from Dibrugarh University. Her areas of interest lies in Natural Language Processing, Software Process Improvement, Agile Software Development and Requirement Engineering.

MR. ABHIJIT BORUAH

Mr. Abhijit Boruah joined the institute in 2012 as an Assistant Professor in the Department of Computer Science and Engineering . He did his B. Tech and M. Tech from Tezpur University. His area of interest lies in Logic and Reasoning, Machine Learning and Robotics.

MS. CHARU GULERIA

Ms. Charu Guleria has joined the Institute in Sep 2018 under TEQIP (MHRD, Govt. of India) as an Assistant Professor. She completed her B.Tech from PTU Jalandhar and M.Tech from NIT Jalandhar. Her area of interest lies in Data Mining , Information Security and Machine Learning.

NEWS, EVENTS AND SEMINAR

AVEZA - IGNITE YOUR IDEAS : A START UP CONCLAVE

AVEZA is a startup conclave cum competition. The AVEZA gives a platform to the innovative minds to shape them into reality. It was held on 2nd and 3rd of November ,2019.

The event is organized with the aim of helping the upcoming starts-ups through encouragement and providing opportunities for networking. The innovative start-up conclave is looking forward for such a boost to all the upcoming entrepreneurs by directing them into the right track with the help of expert Guidance.

EXPERTS / MENTORS :

- Yugansh Chokra, founder, Shopnani.
- Pranab Jyoti Das, independent associate to Vestige Marketing Pvt. Ltd.
- Dharmendra Kalita, founder and CEO, The Rook India.
- Prasad Shetty, Manager, SINE, IIT Bombay
- Kamal Kishore Kumawat, Co founder and Director, Edgistify

AVEZA - The innovative start-up conclave was inaugurated by the Chairman/Managing Director

Dr. H. Purushotham

NEWS, EVENTS AND SEMINAR

Interactive Session and Hands-On Information and Network Security

The session was held in the Department of Computer Science Engineering, DUIET under the aegis of "#include logic", the coding club of the department which was inaugurated on 30th of November,2019 at the M.Visvesvaraya Bhawan Conference Hall under the able guidance of Mr.Kaushik Das, the then Head of the Department, CSE and TEQIP-III Co-ordinator of DUIET, Dibrugarh University.

CHIEF PATRON: Prof. Ranjit Tamuli, Vice Chancellor, Dibrugarh University
PATRON: Dr. P.Bhattacharyya, Director, DUIET, Dibrugarh University
RESOURCE PERSON: Saksham Choudhary

GIST OF THE SESSION

- Networking and Cyber Security: in-depth introduction.
- Discussion about various protocols and current networking paradigms.
- Information and Security.
- Hands-on session with Burp Suite and various Cyber Security Tools.
- Difference between just a Developer and a Secure Developer.
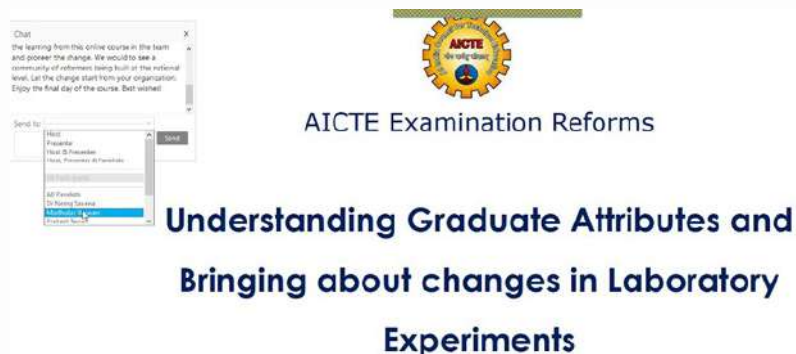- QnA session.

ONLINE WEBINAR

Webinar on Development and Delivery of Engineering Courses by Online Mode

A One Day webinar on "**Development and Delivery of Engineering Courses by Online Mode**" was organised in collaboration with the Prof Khanindra Pathak, BoG Chairman, IIT Kharagpur and Kaushik Das, Coordinator TEQIP-III DUIET. The webinar emphasized on the role of teachers in carrying out effective learning techniques for e-communication.It was successfully conducted by DUIET and Institution of Engineers, Kharagpur Local Centre, IIT Kharagpur on 23 May, 2020. There were 36 faculty participants who were benefited by the program during lockdown.

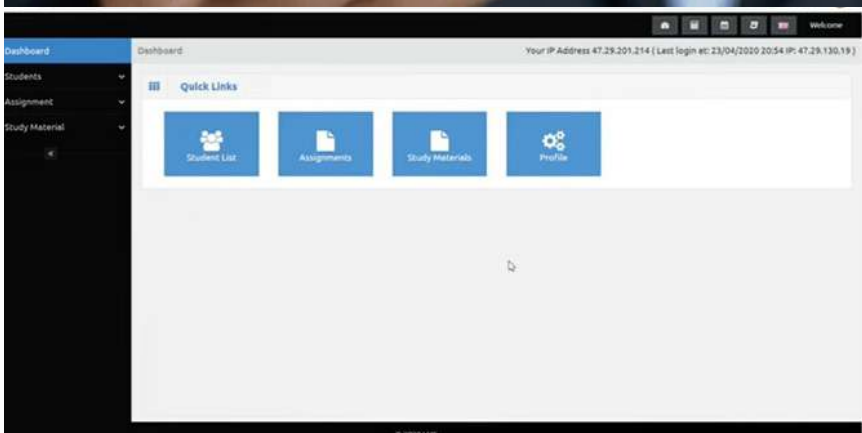## Webinar on Examination Reforms by AICTE by Online Mode

An Online webinar on **"Examination Reforms by AICTE"** was held from 15th to 18th April 2020 and discussed various aspects of the globalization of the world economy and higher education. It talked about changes in the engineering education system. Various experts from KLE Technical University talked about a continuous need to dynamically adapt to these changes and to ensure that students remain competitive and respond effectively to globalization challenges. Mr. M Tiken Singh, Assistant Professor, Department of CSE, DUIET, took part in the said webinar.'

ONLINE TEACHING AND LEARNING

Skill up during Lockdown

Mr Kaushik Das, Assistant Professor, Dept. of CSE, DUIET prepared a web-based Learning Management System (LMS) which is a software application for a streamlined, easy-to-use tool that helps teachers and students to manage coursework.
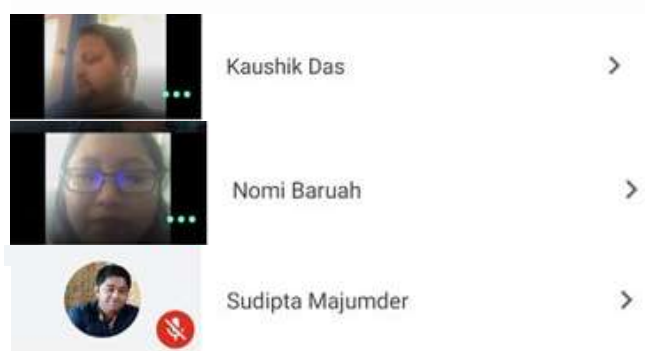
"Online Classes During Lockdown"

COVID-19 pandemic has made a global impact in the past weeks and continues to impact most of the sectors, with the education sector being one of the affected ones. Faculties are conducting classes through various e-modes like Zoom, Jitsi meet, Google classroom where the students are assigned tasks and exams are being held which is helping the students to keep their studies on track. Students are also enrolling different online courses from different platforms like Swayam, Coursera and Nptel.

NEWS, EVENTS AND ONLINE MEETINGS

Online CSE Departmental meeting is scheduled on Google Meet with all the faculties of CSE and HOD(I/C), CSE on 19th June,2020. The meeting was held regarding the discussion on the submission of the estimated budget of the semester fee for the upcoming session and other related topics were also discussed.

General Departmental Meeting – CSE, DUIET

Dated: 19th-June-2020

Abhijit Boruah >

Moirangthem Tiken Singh >

Nomi Baruah >

Rabinder Prasad >

Charu Guleria (You)

Kaushik Das >

Nomi Baruah >

Sudipta Majumder >

International Yoga Day goes virtual in Covid-19 times: It's yoga at home, with family this year

Special Yogic Exercises for HYPERTENSION:

4. CHANDRAVEDI PRANAYAMA

5. OMAKARA CHANTING

6. ANULOM - VILOM

ANULOMA VILOMA
(ALTERNATE NOSTRIL BREATHING / NADI SHODHANAM)

Abarnima Gogoi

satya changmai

Faculties and Students have participated in the session on Deliberation on Management of Thyroid, Hypertension, Stress and Mental Bliss through Yogic Exercises organised on the occasion of 6th International Yoga Day through Google Meet Video Conferencing conducted on 21st June, 2020.

FACULTY DEVELOPMENT PROGRAMME

FDP ON MACHINE LEARNING FOR ENGINEERING APPLICATIONS

A Five days workshop on "MACHINE LEARNING FOR ENGINEERING APPLICATIONS" was organized by IIT Delhi under TEQIP-III from 9th December, 2019 to 13th December, 2019. The program helps in gaining hands-on experience on open source packages for Machine Learning Algorithms.

Mr. Abhijit Boruah and Ms. Charu Guleria have attended the workshop from CSE department, DUIET.

ART OF LIVING EXECUTIVE PROGRAM ON STRESS MANAGEMENT

Mr. Kaushik Das and Ms. Charu Guleria , Assistant Professor, CSE Department have attended the Art of Living Executive Program on Stress Management at Art of living Centre, Bangalore from 19th July, 2019 to 21st July, 2019.

WORKSHOP ON ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

An workshop on "Artificial Intelligence and Machine Learning" was jointly organized by Department of Information Technology, Gauhati University and Assam Science and Technology University under TEQIP-III.

Mr. Kaushik Das and Dr. Nomi Baruah have attended the workshop from CSE department, DUIET under Faculty Development Program.

FDP ON MOODLE SYSTEM IMPLEMENTATION

A two day workshop on implementation of "Moodle System" was organized by Dr. Sudipta Majumder, CSE Department which was a part of faculty development program under TEQIP-III from 21st November, 2019 to 22nd November, 2019 in the dept. of Computer Science and Engineering, DUIET. It is a learning platform which can be used by educators for a personalized learning environment.

SELP- TEQIP-3

-- A Student Development Program

Inside The Issue :

1. GROUP DISCUSSIONS AND ROLE-PLAYS TO INCULCATE LIFE-SKILLS.

2. GROUP ACTIVITIES & GAMES TO DEVELOP PUBLIC SPEAKING AND INTERPERSONAL COMMUNICATION SKILLS.

3 BREATHING TECHNIQUES.

STUDENT EXCELLENCE AND LEARNING PROGRAM 2019

The Art of Living - SELP program, designed and recommended by AICTE, under TEQIP-iii was held in DUIET . The session was of 6 days i.e from 18.11.19 to 23.11.19 . The event was started with the inauguration speech of the director(DUIET) and other faculty members of DUIET.

Each session builds on the previous day's session and creates an environment where the student's mind becomes calm thereby accelerating the learning process.

INDUCTION PROGRAM 2019

Inside the Issue

OBJECTIVE

1. The students should know their course from the starting which will help them in their in future.

2. The students should get familiar with all their main objectives in their four year Enginerring period.

Student Induction Program (SIP),a course approved by the All India Council for Technical Education (AICTE) ,is a three week mandatory program for students pursuing a discipline in the technical line.

2 DAY WORKSHOP ON ARTIFICIAL INTELLIGENCE AT IIT GUWAHATI

The Students of CSE have attended two days workshop on Artificial Intelligence organized by Shiksha AI robotics club at Indian Institute of Technology, Guwahati.
The very first day they have gone through the basics of Artificial Intelligence with some practical sessions and on the second day, they have learnt tp built Chatbots by using libraries and facial detection using Computer Vision.The workshop helped the students in terms of gaining knowledge about AI including theoretical as well as the practical part.

VARSITY WEEK - 2020

The 51st Varsity Week of Dibrugarh University, 'Swarna Ankuran' commenced on March 9 which was inaugurated by Hari Chandra Mahanta, Registrar and Ranjit Tamuli, Vice Chancellor of DU and Reep Hazarika graced the event as its chief guest which ended on March 15, 2020.

It started with great enthusiasm from the students as it is one of the most awaited events of Dibrugarh University . Ms. Richa Baruah, student of CSE Department won 3rd prize in the Folk dance competition held at Dibrugarh University.

CELEBRATIONS AT CSE DEPARTMENT

TEACHERS' DAY

Teacher's Day is one of the exciting days in student's as well as teacher's life and students get an opportunity to teach and behave like teachers. Teacher's day was celebrated on 5th September, 2019 to honor all the teachers for their special contribution towards education field. The event concluded with the 1st semester student's performances.

INDEPENDENCE DAY

Dibrugarh University organizes Independence Day on 15th August and DUIET actively takes part in it as our marching contingent displays marchpast. DUIET secured the 2nd position in 2019 march past of Independence day.

DIWALI CELEBRATION

"Dibrugarh University of Engineering and Technology organizes Diwali each year . The celebrations include lighting of lamps and cracking fireworks.

ENVIRONMENT DAY, 2020

DUIET observed the World Environment Day on June 5 amid the COVID-19 pandemic maintaining social distance. A short tree plantation programme was held at DUIET core building with an aim to encourage awareness and action for the protection of the environment, inaugurated by Director Sir.

NATIONAL SERVICE SCHEME(NSS)

Dibrugarh University NSS P.G Unit has one of the most driven and enthusiastic set of people who have been associated with many social services like planting of 1000 saplings of varied species within the precincts of **Dibrugarh University,** distributing clothes to the needy people, health care and food distribution to nearby villages of Dibrugarh district during the Floods , organizing various awareness programmes like on prudent usages of social media and its effects on the society, awareness on different schemes of the Government of India, quality education and spiritual lecture given to the parents of the students of Jamirah Tea Estate Gandhiji School and also on highly relatable issues to the youth of today, mental health, trauma shaming and cyber bullying, cancer awareness etc. Programmes like Swachh Bharat Abhijan at Janajati Gaon and M.E School were organised where the students were brought to work unitedly on cleaning their schools and its surroundings. .Along with various events held inside and outside of college, **DU NSS P.G Unit** has shown its potency in every field.

In addition to these, many blood donation camps, free Medical check-ups for the villagers, visiting Child-orphanages and Old age homes are occassionally organised to keep the students connected to the society and mark a significant role in its development towards the betterment of the society.

DU NSS P.G Unit offers an an opportunity your freedom of expression and be a catalyst of change. NSS provides a platform through which one could express himeslf/herself and do the part for the society.
The motto of National Service Scheme is NOT ME BUT YOU.

Research Related Meetings Attented by faculties

Mr. Abhijit Boruah was Invited to UNIVERSITY TEKNOLOGI MALAYSIA as research collaborator.

Ms. Charu Guleria has attended two CRS Project Reviews held at AICTE, New Delhi.

Research Publications

Mr. Tiken M. Singh has published research paper on "Automated Detection of Diabetic Retinopathy" in Second International Conference on Advanced Computational and Communication Paradigms (ICACCP), Gangtok, India, 2019.

Mr. Tiken M. Singh has published research paper on "An algorithm for iterated game to handle self-obsessed behavior in a noisy social communication network" in International of Engineering Research and Technology, 2019.

Mr. Abhijit Boruah has published paper with authors Manas Jyoti Das, Jyotirmoy Malakar and Priyam Bora titled "Generating Parking Area Patterns from Vehicle positions in an Aerial Image Using Mask R-CNN" in 3rd International Conference on Computational Intelligence and Data Engineering to be published by Lecture Notes on Data Engineering and Communications Technologies, Springer, (ICCIDE 2020)

Mr. Kaushik Das and Dr. Nomi Baruah has published a paper on "Evaluation of Content Compaction in Assamese Language" at Third International Conference on Computing and Network Communications (COCONet19).

Mr. Abhijit Boruah has published two papers, first paper is "Reasoning on Objects' Geometric Shapes for Prosthetic Hand Grasping" and another paper with two student Authors Parismita Bharali and Chandrika Bhuyan titled "Plant Disease Detection by Leaf Image Classification Using Convolutional Neural Network" in AIR 2019: Proceedings of the Advances in Robotics 2019 Publisher: ACM Digital Library and Communications in Computer and Information Science respectively.

Mr. Rabinder Kr. Prasad has published a paper on "Enhanced Partition- Based Method Using Correlation Coefficient" at IEEE Conference.

Dr. Nomi Baruah has published research paper on "A Single Document Assamese Text Summarization Using a Combination of Statistical Features and Assamese WordNet" in 4th ICACIE, 2019 Conference.

Dr. Nomi Baruah has published research paper on "Text Summarization in Indian Languages: A Critical Review" in 2nd ICACCP, 2019 Conference.

Dr. Nomi Baruah has published research paper on "A Novel Approach of Text Summarization using Assamese WordNet" in 4th ISCON,2019 Conference.

Dr. Nomi Baruah has published research paper on "A Study of Different Text Summarization Techniques Based on Input" in IOSR-JCE, 2019 Conference.

research Collaboration

Mr. Moirangthem Tiken Singh did a collaborative work titled "A Generic Scheme for Cyber Security in Resource Constraint Network Using Incomplete Information Game" with University of Central Florida (UCF), Orlando, FL 32816 U.S.A, which is submitted for publication at Cybernetics and Systems.

RESEARCH PROJECTS

RESEARCH PROJECT

Mr. Abhijit Boruah is Co- Principal Investigator of the Research Project, **"Development of a tactile sensory based grasping controller for electromyographic prosthetic hand"** has been funded by NECBH, DBT, Govt. of India.

CRS PROJECT

Ms. Charu Guleria is Principal Investigator and Mr. Kaushik Das is Co-Principal Investigator of the Research Project, **"Efficient Execution of User Applications in Mobile Edge Computing Platform"** has been approved under "TEQIP Collaborative Research Scheme" .

CRS PROJECT

Dr. Sudipta Majumder is Co-Principal Investigator of the Research Project, **"A study of deterministic model for HIV/AIDS through stability Analysis and approximate analytical me"** has been approved under "TEQIP Collaborative Research Scheme".

RECRUITMENT RECORDS

The Training and Placement cell of the CSE Department, DUIET is actively led by Mr. Abhijit Boruah and Mr. Rabinder Kumar Prasad . A few recent placements are as follows -

Bhargab Sharma
Wipro Limited

Aninda Chakrabarty
Cognizant

Begum Shanaj Ferdous L
TCS

Sourav Dutta
Cognizant

Dhanojit Ray
Capgemini

Prakriti Bharali
TCS , Cognizant

TRAINING AND INTERNSHIPS

ओएनजीसी
ONGC

Geopetrol
Pyalo Corp.

इंडियनऑयल
IndianOil

HCL

RELIANCE

hp

Indian Institute of Technology Guwahati
भारतीय प्रौद्योगिकी संस्थान गुवाहाटी

सी डैक
CDAC

airtel

रा.इ.सू.प्रौ.सं
NIELIT

Capgemini

Infosys

"Believe in Yourself"
- Swami Vivekananda

Bhaskar
photography

OUR TEAM

Standing from left to right : Sainnie Dehingia, Bidisha Baruah, Arman Saikia, Chinmoy Kakoty, Bibhuti Gogoi, Jyotishman Bora, Dikhit Kumar Bhuyan, Bikash Baruah, Bhargab Sarma, Richa Baruah, Kashmiri Moni Mahanta

Sitting from left to right : Mr. M. Tiken Singh and Ms. Charu Guleria

Words from Faculty-In-Charge

- MS. CHARU GULERIA

I am delighted to present the second volume of Departmental Newsletter 'Orihona'. Through this newsletter, the reader will discover a wealth of contribution from students and faculty of Department of CSE. It is not just the text but the splendor of images within the pages that speaks volumes about the enriching events, activities and celebration held in the precincts of the Department of CSE, DUIET.

Special appreciation to the assiduous student team who have endeavored to complete the task at hand for days to ensure that 'Orihona' stays current and vibrant. I also thank my co-coordinator Mr. M. Tiken Singh for his time and effort.

I wish that the upcoming volume of Orihona will be consistently holistic and enthralling.