



Unveiling Excellence

Newsletter *The Binary*

Department of Computer Science and Electronics UNIVERSITY OF SCIENCE & TECHNOLOGY MEGHALAYA

An Annual Newsletter, June 2020 - July 2021

Message from Vice Chancellor...



University of Science & Technology Meghalaya (USTM), founded by ERD Foundation is the first private University in North East India. Imparting quality education to the student community is one of the fundamental aspects of the Institution. and adhering to quality teaching and learning during Covid-19 pandemic.

We holistically pursue to be one of the best Academic Institution. With the rise and influence of Technology in our day to day life, the Department of Computer Science and Electronics was established in the year 2012. The department offers various Under Graduate and Post Graduate courses and Doctor of Philosophy (Ph.D) programmes. In addition to various degree courses, the Department offers Value Added Courses in the field of Computer Science and Electronics to impart knowledge in latest areas.

I am delighted to present to you all BINARY 2021 from the Department of Computer Science and Electronics. During COVID-19, Corona virus has changed our social and educational working. Science has done its job in record time to save Human civilization. These times are a new beginning to a new lifestyle deferring offline conferences and meets. We are now accomplished with no travels and classroom teaching. The term Online is buzzing. I would like to thank the energetic and hardworking faculty members of the Department of Computer Science and Electronics for keeping no stones unturned to keep up

with the online activities during this period.

The Department has been instrumental in conducting various academic programs and various activities such as webinars, Photography Contests, Alumni meet etc.

I thank the Department of Computer Science and Electronics for their immense contributions towards the student community for conducting Online Classes

G.D. Sharma

Prof G.D. Sharma
Vice Chancellor

Head of the Department Speaks.....

At the very outset, I would like to thank our management, faculty colleagues and departmental staff for giving me support to execute the departmental activities. In this Academic year 2020-21, we faced many challenges due to COVID 19 pandemic.



The biggest challenges were maintaining quality of education. It was very difficult to providing mental support to learner during lockdown period. Maintaining good health for self and others was one of the major challenges for us. To keep in synchronization as earlier years, we conducted classes through online mode. Fulfilling student's requirements through online delivery was a new experience for all of us. In this regard, our management and students provided us a great support.

During this session, the department has conducted four national level webinars inviting eminent guest speaker from the country. I believe that these events help our students a lot. I congratulate our students for showing in-depth humanity by offering basic needs to some poor families during pandemic. I congratulate to those students who can show their best performance in the recent result in spite of their many obstacle. I must congratulate those students who got placed in their career in this year.

I congratulate to all my team members, my brilliant students and their responsible parents for providing efforts in concluding a bright academic year. I wish that we can overcome the barrier and enjoy a successful forth coming academic year.

Regards,
Dr. Bhairab Sarma

-Highlights of this issue-

- ▶ Virtual Webinar on Artificial Intelligence in Health Care
- ▶ Virtual Photography Competition: "Onset of Spring"
- ▶ World Telecommunication and Information Society Day celebrations.
- ▶ National Webinar on "Why Soft Skills are crucial in today's competitive market"

- ▶ Parent Teacher Virtual Meeting
- ▶ Outreach Activity during COVID Pandemic (Year 2020)
- ▶ Students Achievements
- ▶ Faculty Achievements

ABOUT THE DEPARTMENT

The Department of Computer Science & Electronics has been established in the year 2012 under the University of Science & Technology, Meghalaya. Since its inception, the department is offering various academic and professional courses in the field of Computer Science & Electronics. At present the Department is offering degrees of Bachelors of Computer Application (B.C.A), Master of Computer Application (M.C.A), Bachelors of Science in Electronics (B.Sc. Electronics) and Master of Science in Electronics (M.Sc. Electronics).

VISION

Realizing the need of society, the following statement is made as the Vision statement of the Department of Computer Science & Electronics.

"To develop human resources and professionals in the field of Computer Science and Electronics by imparting application oriented quality education."

MISSION

To fulfill the above Vision, the Department has setup the following the objectives as the mission of the department.

- ▶ To impart quality education in the field of computer and electronics and groom the students to be technologists, skilled professionals and dedicated citizen
- ▶ To Establish unique identity by development of high quality human and knowledge resources in the area of Computer Science and Engineering to meet local, national, and global economic and social need and society at large in self-sustained manner
- ▶ To be the destination of the region for professional education in the field of Computer Science & Electronics
- ▶ To provide practical oriented quality education and make the student's confident and sustainable enough in their professional and personal life.
- ▶ To provide an interface and encourage the students for industries.

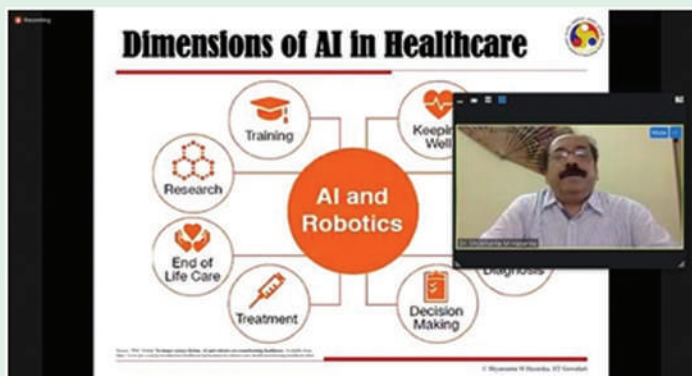
COURSES OFFERED

- BACHELOR OF COMPUTER APPLICATION (B.C.A)
- MASTER OF COMPUTER APPLICATION (M.C.A)
- DOCTOR OF PHILOSOPHY(PH.D)

EVENTS

Virtual Webinar on Artificial Intelligence in Health Care

Artificial Intelligence is one of the emerging areas in the field of Computer Science. With the increase in demand and interest in this area of Computer Science of the enthusiasts the department has organized a National Webinar on Artificial Intelligence in Health Care. Professor Shyamanta Moni Hazarika, who is a renowned scientist, was invited to deliver a speech on this topic on 8th June 2020. It has been rewarding for the community Professor Hazarika emphasized on every aspect of applications of AI in health care especially in Drug Administration, Patient's History Monitoring, and Robotic Surgery.



PHOTOGRAPHY COMPETITION “ONSET OF SPRING”

To bring out creative thinking amongst the students, the department organized various activities and competitions. To boost up the creativity and skills amongst students during this pandemic period, an Interdepartmental Photography Contest was held by the department on 13th April, 2021. This contest was a part of the celebration of Spring Festival. The contest was conducted for both the Categories Digital Camera & Mobile Camera under the judgment of Mr. Neeraj Kumar Phookan, an expert in the field. Mr. Phookan is an instructor of PRO Vision Imaging Academy, a pioneer professional institution of Assam.

Winner of the event:

Category 1- Digital Camera

1. Jyotishmoy Deka, 1st Prize
2. Dipankar Sarkar, D. Pharm- 2nd Prize



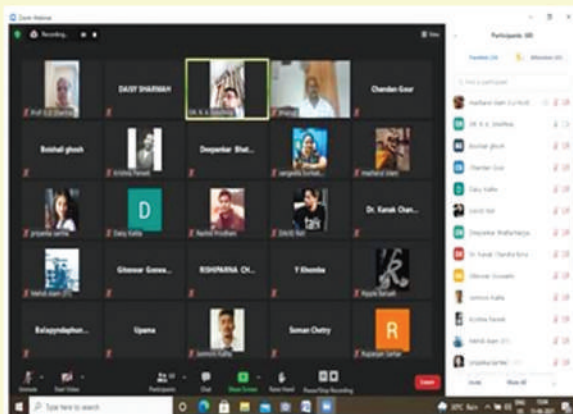
Category 2- Mobile Camera

1. Debasish Nath, B.C.A - 1st Prize
2. Sahidul Alam, MSc. Physics – 2nd Prize



ALUMNI MEET IN VIRTUAL MODE

Alumnae is an integral part of the department. To meet and greet, the department organizes Alumni Meet every year. This year the meeting was organized on 13th June 2021. The Meet commenced with the welcome address of Dr. Bhairab Sarma, HoD, Department of Computer Science and Electronics followed by the speech of our Honorable Vice Chancellor, Prof. G. D. Sharma. Sir encouraged the alumni by delivering a speech illuminating the importance of students' career. Dr. R.K. Sharma, Honorable Advisor also delivered an intellectual speech in the event. The invited guest Mr. Deepankar Bhattacharya, Dy. Director, Training & Placement Dvn, enlightened the students by delivering speech on the current work cultures in workplaces. The Programme was enriched with cultural activities



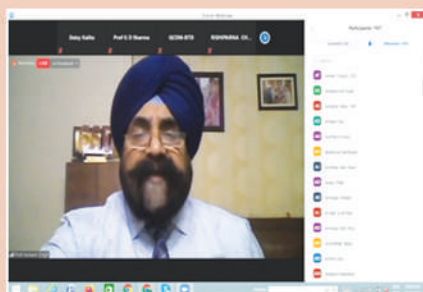
CELEBRATED WORLD TELECOMMUNICATION AND INFORMATION SOCIETY DAY

The Department of Computer Science & Electronics has been celebrating World Telecommunication & Information Society Day [WTISD] on 17th May annually. This session was observed through online mode. The department organized a national webinar on the theme "Accelerating Digital Transformation in challenging times".

The Guest Speaker was Mr. Ramanuj Prasad Singh, CEO, Unixplus Infotech Private Limited. Ghaziabad, India. He highlighted that digital transformation is not only adaptation of new technology; but it's also about directing an organization to be more adaptive to constantly changing environment. It was a great success event of the department.



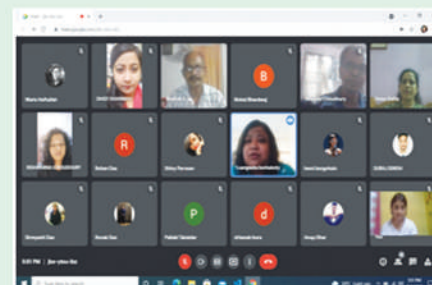
NATIONAL WEBINAR ON SOFT SKILL



Not core technical, this event was something different from our domain. The Department observed that getting a job is not so difficult with respect to sustainability. Due to lack of soft skills, now a day's, job satisfaction has put its mark. It has now become a necessity to teach students, how to sustain and progress in career. With this purpose the department organized a national webinar on "Why Soft Skills are Crucial in Today's Competitive Market" on 10th June 2021. The Speaker of the event was Prof. Avinash Singh, Founder and CEO, Linkages. The Speaker discussed about the importance of soft skills, defining them as skills that enable someone to fit in at a workplace. He also elaborated the most important soft skills that employers generally look for in an employee.

PARENT TEACHERS MEET (P.T.M)

The Department of Computer Science & Electronics has organized a Parent-Teacher meet from 8th July to 11th July 2021 batch wise in virtual platform using Google Meet. The objective of the meeting was to create awareness about academic progression of the students, attendance records, and involvement in co-curricular activities. Parents presented in the meeting, expressed their gratitude as the University had continued online classes as like as regular classes and has completed the syllabus on time without compromising quality of learning.



A NATIONAL WEBINAR ON IMAGE PROCESSING & COMPUTER VISION

The Department of Computer Science & Electronics has organized a Webinar on "Image Processing & Computer Vision" on 19th July 2021. The two of the Speakers were Mr. Puyam S. Singh, Scientist, NESAC and Mr. Gopinath Bej, Principal Technical Officer (C-DAC) Kolkata. Mr. Puyam Singh initiated as the 1st Guest Speaker and he talked about the importance of Image Processing in practical fields defining them as the transformations from 2D to 3D images. He also mentioned about the Computer Vision and its applications. The 2nd Guest Speaker, Mr. Gopinath Bej delivered his speech on Applications on Machine Vision in Agriculture. He talked about the various types of Image Processing Devices used in the Agriculture fields. The Speaker also touched upon the Functionalities and Formats of the Sampling as well as Quantization tools.

OUTREACH ACTIVITY @COVID PANDEMIC(YEAR 2020)

Students List:

Name: Bipul Debbarma
Course: MCA 4th semester
Contribution: 3kg rice and 2 kg potatoes to 20 family.
Date: 7/04/2020

Name: Rakibul Hoque
Course: BCA 2nd semester
Contribution: Distributed food items to 25 family.
Date: 7/04/2020



OUTREACH ACTIVITY @COVID PANDEMIC (YEAR 2020)

Students List:

Name: Sahidul Islam Laskar

Course: BCA 2nd semester

Contribution: Distributed food items in his locality.

Date: 7/04/2020

Name: Francis Das

Course: BCA 4th semester

Contribution: Distributed food items to the needy people.

Date: 8/04/2020

Name: Dhiraj Talukdar

Course: BCA 4th semester

Contribution: Distributed food items to the needy people.

Date: 8/04/2020

Name: Manash Kumar

Course: MSE 2nd semester

Contribution: Distributed food items to the needy people.

Date: 12/04/2020

Name: Jyotish Hafila

Course: MSE 2nd Sem

Contribution: Distributed food items to the needy people.

Date: 12/04/2020

Faculties List:

Name: Daisy Kalita

Contribution: Distributed food items among

18 families of Dekapara village- Dipila

Date: 24th April 2020

Name: Rishiparna Choudhury

Winner at Plogging challenge

for Swachhata Pakhwada of

Swachh Bharat Mission

Organized by Oil India Ltd.

Date: 4th to 15th July, 2021



ALUMNI DATA

POSITIVE NEWS STORIES @ PANDEMIC



Yanglem Khomba Meitei

Appointed at Wipro, Bengaluru as Trainee Computer Application.



Soman Chetry

Appointed at Medicity, Guwahati Aditya Hospital as medical field Officer.



Chandan Gour

Appointed at Rely Health Care Technologies, Guwahati as Software Developer



David Ray

Placed at NEILIT Guwahati as Technical Assistant

R&D PROJECTS



MSc Electronics Students Suraj Singh and Mohar Daimary developed **"Automatic Hand Sanitizer"** and presented it to the Department of Computer Science & Electronics

Project
"IOT based Smart Intelligent Emergency Alert System"
under DST completed by our students.



Project **"Use of Multi Spectral Drone Imagery For Vegetation Health Monitoring for Precision Agriculture"** under North East Space Application Centre (NESAC) was completed by Pramod Chetri, MCA Final Year Student. .

PHOTO GALLERY



Group Photo of faculty members and students,
Department of Computer Science & Electronics



Students during Laboratory Class.



Students at Departmental Library

FACULTY ACHIEVEMENT

LIST OF PUBLICATIONS BY FACULTY MEMBERS

Publication in Journals/ Magazines

Sl. No.	Title of the Paper	Author(s) of the paper	Publication Details
1	Online Learning of Science Education through Virtual Reality : a challenges to the prevailing pandemic Scenario	Dr. Bhairab Sarma	Published in Bulletin of Scientific Research , Journal of Assam Science Society, Vol 60, NO 1, November 2020
2	Challenges of natural Language Processing: A new dimension of Research in Computing	Dr. Bhairab Sarma	Journal of Environmental Science, Computer Science and Engineering & Technology, An international peer reviewed journal of Sciences & Technology, Vol 10, No 2 , April, 2021
3	Green Computing Model On Clouds	Daisy Sharmah	Published in i-manager's Journal on Cloud Computing (JCC), June 2020 issue (Volume No.7, Issue No.1) 30 th December, 2020
4	MAHO: Modified Ant Honey Bee Optimization Algorithm for Load Balancing in Cloud Environment	Priyanka Sarma	International Journal of Computer Science and Engineering, Vol. 8, Issue. 7 E-ISSN: 2347-2693 July 2020

UPCOMING EVENTS

Sl _No	Name of the Event	Date
1	Five Days Faculty Development Program on Artificial Intelligence, Machine Learning & Robotics	6 th September to 10 th September, 2021
2	Engineers Day-2021	15 th September, 2021
3	Five Days workshop on Internet of Things(IOT)	22 nd November to 27 th November (Tentative)
4	Cleanliness drive at the adopted village	26 th November, 2021
5	World Computer Literacy Day	2 nd December, 2021
6	Machine Learning with Python Programming in collaboration with Cotton University	4 th December (Tentative)
7	Two Days National seminar on Recent Trends and Development in Computer Science	11 th and 12 th February, 2022 (Tentative)

EDITORIAL COMMITTEE

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Members	: Ms. Daisy Sharmah, Assistant Professor, USTM Ms. Rishiparna Choudhury, Assistant Professor, USTM Mrs Sangeeta Borkakoty, Assistant Professor, USTM
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