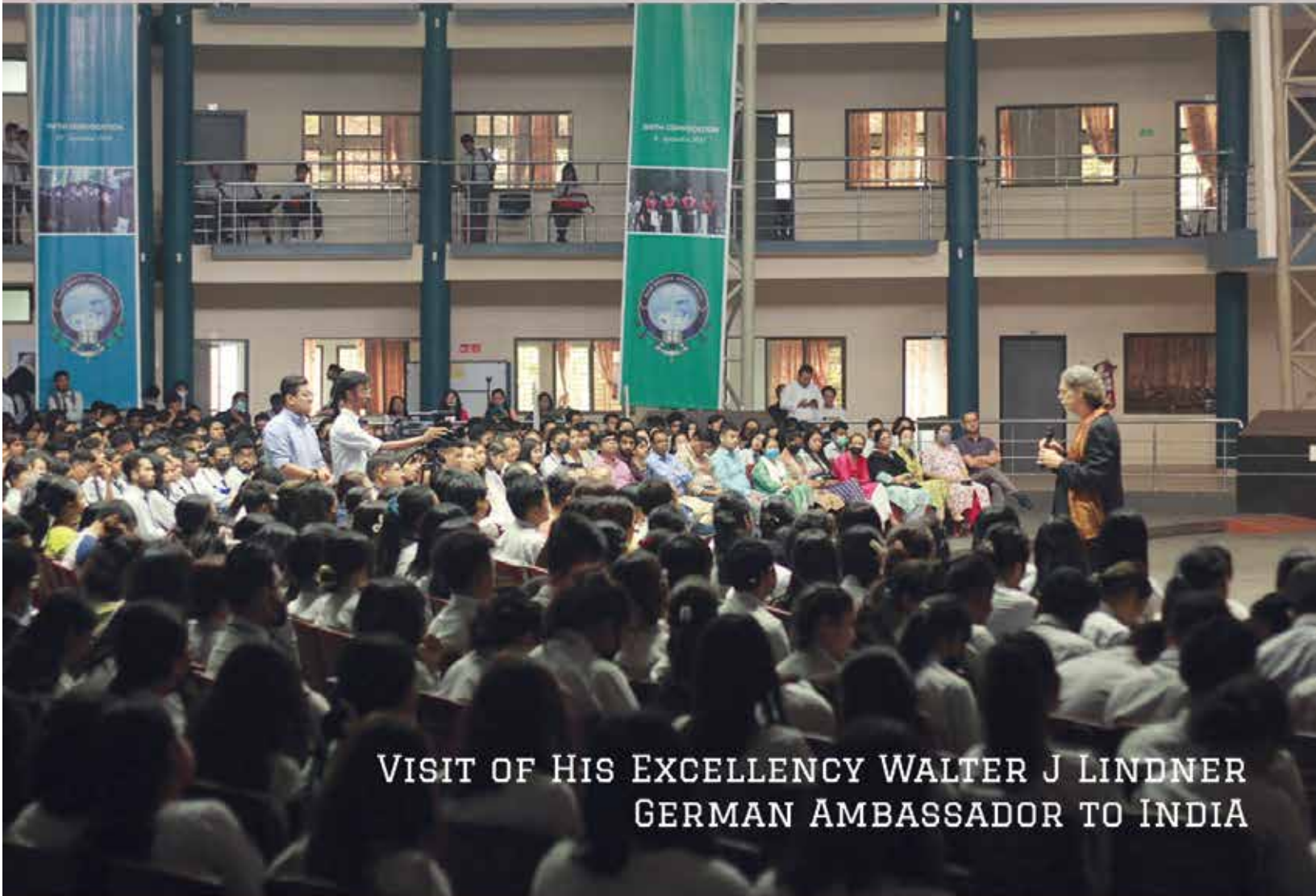


# SPARK



A Newsletter for Don Bosco University family, alumni and friends

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## VISIT OF HIS EXCELLENCY WALTER J LINDNER GERMAN AMBASSADOR TO INDIA



University Team Won  
Smart India Hackathon



University in 'BAND EXCELLENT'  
in ARIIA 2021



Inauguration of Academic Block - V  
at Tapesia Campus



AICTE Sponsored Training Programme

## Message from the Vice Chancellor

A unique academic year 2021-22 is just ending... and another is commencing soon - 2022-23... The pandemic times (still with us in many ways) have taken a mental toll on most people and in a special way, on the student community. Though people have by and large moved on, there is considerable trepidation, hesitation and emotional fragility that are lingering on. We witness too varying levels of depression and hopelessness, leading to lethargy, lack of enthusiasm and a sense of purpose.

To countenance such a situation, Positive Psychology prompts us to equip ourselves with emotional resilience. When that resilience is in place, we should be able also to reach out to those around us with the empathy and support required to ensure a caring and holding environment for all, an ambiance that our University always strives to provide.

It is with this objective in mind and to move emphatically in this direction as a University Community that we planned our Faculty Development Programme, to be held before the start of the new academic year, on the theme *'Resilience and Empathy – the call of the pandemic times'*.

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During the last two months or so, while interviewing candidates for faculty positions in Psychology, there was one preoccupation in my mind: to ensure that the University should have a set of men and women who would

- Take note of the immense damage the pandemic experience has done to the minds of everyone, especially the young men and women in our classrooms;
- Offer them a listening ear and heart; and,
- Instill in them the capacity to search for and live by their inner resources and strengths that will enable them to cope and to thrive.

... and so there was much back and forth between the interview panel and the job applicants on Abraham Maslow (who coined the term 'Positive Psychology' in the 1950's), on Carl Rogers (much of whose work revolved around humanistic and person-centred psychotherapy) and Martin Seligman.

It was Seligman who most emphatically popularized the expression Positive Psychology through his influential work "Authentic Happiness." He defined it as the study of positive emotions and the "strengths that enable individuals and communities to thrive."

In his second best-seller, "Flourish," Seligman expanded his vision of human well-being based on five components, known by the acronym PERMA, including Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment.

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It is on these five components that I want to dwell on in this brief message.

- a. **A Positive mind-set that treasures gratitude, mindfulness, and hope.** Of all the positive emotions studied in the relatively young field of positive psychology, gratitude has perhaps received the most attention. Grateful people have been shown to have greater positive emotion, a greater sense of belonging, and lower incidence of depression and stress.
- b. **Engagement and discovering Meaning** – there exists a close link between spiritual and religious practice and happiness. Spirituality is closely related to the discovery of greater meaning in our lives. Through a meaningful life, Seligman believed, we discover a deeper kind of happiness.
- c. **Relationships** - People who have one or more close friendships are happier. The ability to express genuine interest in what people say, and respond in encouraging ways, is a powerful way to enrich relationships and cultivate positive emotions.
- d. **Accomplishment and finding your flow.** If we are deeply involved in trying to reach a goal, or an activity that is challenging but well suited to our skills, we experience a joyful state called "flow." The activity itself is a type of intrinsic motivation that produces the experience of flow. In his words, "you do what you're doing primarily because you like what you're doing."

In the pursuit of happiness, meaning, resilience and all that contribute to finding our feet again in the wake of the pandemic years, Positive Psychology can help immensely to put the smile back on our faces, to rediscover the spring in our steps, to keep on searching for meaning, always keeping the doomsayers at a distance... and to journey on in hope...

Carpe Diem... "Hope springs eternal in the human breast!"

**- Fr (Dr) Stephen Mavelly  
Rector & Vice Chancellor**



## Rank Excellent in ARIIA Ranking 2021

In the latest ranking released by Dr. Subhas Sarkar, Hon'ble Union Minister of State for Education, Government of India on 29 December 2021, Assam Don Bosco University has been placed in the Band-Excellent group in the category 'University – Private/Self-Financed'.

Band-Excellent is the second-best category next to the top 10 institutes placed in the Ranked category. Band Excellent is followed by Band-Performer, Band-Promising, and Band-Beginner. **Assam Don Bosco University is the only institute from North-East India to be placed in the Band-Excellent group for the category University: Private/Self-Financed.**

Atal Ranking of Institutions on Innovation Achievements (ARIIA) is an initiative of the Ministry of Education (MoE), Government of India to systematically rank all major higher educational institutions and universities in India on indicators related to "Innovation and Entrepreneurship Development" amongst students and faculty. The ARIIA 2021 ranking was released by Dr. Subhas Sarkar, Hon'ble Union Minister of State for Education, Government of India on 29/12/2021.



## University Team won Smart India Hackathon 2022

The University's Team - Terra Vision, a group of six students and two mentors won first prize in the 6th edition of Smart India Hackathon (SIH) organised under the Ministry of Housing and Urban Affairs, Government of India held at Manipal University, Jaipur on 25-26 August 2022. The prize includes certificates and 1 lakh rupees. This is the 5th win for the University since the inception of SIH in 2017.

Terra Vision was among four other teams that made it to the finals surpassing the five-level selection process. These young engineers from various colleges and universities from across India were competing over problem statements given to them by the Ministry. The other three teams were from Adhitymaan College of Engineering, Tamil Nadu, V.V. College of Engineering, Tamil Nadu and Bajaj Institute of Technology, Maharashtra.

It is also noteworthy that three members of Terra Vision already have job offers while one is lined up for a job through a paid internship; the other two are expecting to hear from companies.

A total of 29 teams of 200 participants were competing against 6 problem statements from the Ministry of Housing and Urban Affairs, Government of India.



Smart India Hackathon is a nationwide initiative to provide students with a platform to solve some of the pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem-solving. The first four editions SIH2017, SIH2018, SIH2019 and SIH2020 proved to be extremely successful in promoting innovation out-of-the-box thinking in young minds, especially engineering students from across India.



## Inauguration and Blessing of Academic Block V

On 30th January 2022, the inauguration and blessing of the newly constructed Academic Block christened 'Centenary Block' in commemoration of the centenary year of the arrival of Salesians of Don Bosco in North East India was held at Tapesia Campus.



The new academic block, inaugurated by Rev Fr Januarius Sangma, Provincial, Guwahati Province, hosts the School of Professional Studies. The inaugural ribbon cutting was followed by the blessing of the newly constructed building by Most Rev. John Moolachira, Archbishop of Guwahati.

In his welcome speech, the Vice Chancellor, Fr (Dr) Stephen Mavelly spoke about the challenges encountered in building the largest academic block in Tapesia Campus and gratefully acknowledged the ever-provident God for accompanying the journey of the University since its inception and conveyed his sincere gratitude to the superiors, administrators and confreres of the Generalate and Guwahati Province, Dr Lucchini, Salvaneschi, and foundations like CEI, Porticus, Bachmann, Salesian Procures in Beromunster, Bonn, Hong Kong, Madrid, New Rochelle, Rome, Turin, Vienna.

## International Women's Day 2022



International Women's Day was celebrated at the University by various schools. At the school of Humanities and Social Sciences, students of the Department of Social Work conducted a special assembly which included recitation, dance and a prayer. The students also made a number of educational and awareness posters and displayed them at various locations in the campus. The women teachers were felicitated and a movie 'Hidden Figures' was shown in the afternoon.

The School of Life Sciences and Fundamental and Applied Sciences also conducted a special assembly in the morning where Ms. Pallabi Borah spoke on the roles played by women in today's world at various levels of in the society and economics and at the same time the important role of women in a family. A group song was also presented by student volunteers.

This year's theme of International Women's Day is 'Break the Bias', which is calling for a world where difference is valued and celebrated, where there is equality for women.



## Interaction with German Ambassador

The German Ambassador to India, His Excellency Walter J Lindner delivered a speech on 'New Diplomacy for New Global Challenges' at Assam Don Bosco University on 1st April 2022 and interacted with the students of the University in a very lively and informative session.



In his welcome speech, Fr (Dr) Stephen Mavelly said, "We are delighted to have you here to share with us your thoughts on the diplomatic challenges that face the world today. None of us present here have been through the agonies of a world war. On the contrary, we have been in a way privileged to enjoy the benefits of liberal democracies that blossomed after the war. But, now, war clouds threaten our lives in spite of being so far away from the actual theatre of war."

The Ambassador started his speech by appreciating the rendition of a song 'Imagine' presented by the University Choir in different languages saying that the song set the right tone for the programme and that the students are fortunate for being exposed to a diverse culture on campus which builds tolerance towards others and to care what is happening in other parts of the world.

Calling for the need to have a new diplomacy in the world, Ambassador Lindner said, "I am not your typical, normal diplomat, I have a ponytail, I am a musician, I played in a rock band, so, bring it on! I am different I guessed. But, we need different kind of not only diplomats, but parliamentarians, politicians and leaders who are transparent and accountable to their actions. They have to be one of you! They have to be one of us!"

Speaking about how busy his schedules are these days due to the war in Ukraine, he said, "I don't want to bring 'Ukraine' to you because it is far away but only one aspect – for Germany it is much closer. Kiyv is only 10 hours' drive from Berlin. So, the bombs are ten hours car drive's away. As we speak, people are looking for shelters in subways because of the continuous bombardments. But, the point I want to make here is more philosophical. Our future. Many of our times, of our brain cells are invested on spending more money for tanks, bombs, confrontations, cold war. We need that money, we need that time, we need those brain cells for the real important questions in the world – poverty eradication, climate change, finding a solution for plastics, establishing smart cities etc. Now Parliaments are talking about military spending again, not education, not developments. The war in Ukraine has brought back increase in military spending internationally and this is what I think is very bad about Putin's war apart from attacking a peaceful country which is posing no threat to him.

The Ambassador also spoke on what he called as 'The Perfect Storm' coming from three directions -Overpopulation, Reduced Natural Resources and Climate Change and stressed on the need for action as time is running out. "You are bright and young and my appeal to you is that you have to come out with a solution for these issues. We need a battery that can collect all solar powers, we need fertilizers which are environmental correct but are efficient or anything you can invent which will help humanity."

The talk was followed by a lively interaction which lasted much longer than the talk itself where the Ambassador answered questions on the ongoing war in Ukraine, Climate change, World Economy etc.

Soon after the programme was over, Ambassador Lindner tweeted, "...you could hear a pin drop... brilliantly attentive students, open-minded and cross-cultural...outstandingly located University".

## World Frog Day 2022

On the occasion of World Frog Day, the Department of Zoology in collaboration with EcoClub, Don Bosco University, organized a talk on 'Tadpoles' on 21 March 2022. The session was delivered by Dr. Dipankar Dutta, Head, Department of Zoology, University of Science and Technology, Meghalaya.

Student representative, Resmin Sultana, extended a warm welcome to the attendees followed by the felicitation of Dr. Dipankar Dutta. Dr. Dutta began his lecture with a brief introduction on tadpoles. He went on to explain the poor quality of frog description which leads to a decrease in the accuracy of the numbers in frog species in India. Dr. Dutta described the detailed morphological structure of a tadpole, the types, diversity of larval feeding types, habitat types, and micro-habitat data sheets for tadpoles, oral apparatus, anuran life-cycle, different stages of development, microhabitat of anuran egg-laying sites, amongst others. Dr. Dutta concluded by encouraging the students to fill in the research gaps that exist in the world of anuran biology. The programme concluded with a vote of thanks by Dr. Bakhtiar Hussain, Head, Department of Zoology. There were a total of 105 participants.



## AICTE Sponsored Training Programme

A Three-Day AICTE Sponsored Training Programme on Nanotechnology Based Sensor Design was held on 3-5 March 2022 in the Department of Electronics and Communication Engineering.

This training programme had eight technical sessions as given below:

| Sl No | Supervisor                                | Title  |
|-------|---|--|
| 1     | Nanotechnology Based Sensors              | Dr. Indrani Dakua, Associate Professor, ECE, ADBU                      |
| 2     | Electrode Design using different Software | Mr. Arup Borah, Technical Superintendent, ECE, IIITG.                  |
| 3     | Electrode Design in PCB board             | Mr. Arup Borah, Technical Superintendent, ECE, IIITG.                  |
| 4     | Sensor Fabrication                        | Ms. Nairika Deka, Assam Down Town University                           |
| 5     | Microwave and SPR Sensor                  | Dr. Kumaresh Sarmah, Assistant Professor, ECT, Gauhati University      |
| 6     | Nanomaterials and Sensing Mechanism       | Mr. Karen Das, Assistant Professor, ECE, ADBU                          |
| 7     | Synthesis of Gold Nano Particle           | Ms. Nairika Deka, Mr. Dhrubajyoti Medhi and Dr. Kaustubh Bhattacharyya |
| 8     | Nanotechnology based Gas Sensors          | Dr. Rashi Borgohain, Associate Professor, E&TE, AEC                    |
| 9     | Heavy Metal Detection                     | Mr. Arnab Kumar Sarkar, Assam Down Town University                     |

After each technical session, feedback was taken from all the participants and on the final day combined feedback was also taken. On 5th March, an examination was conducted during 4-5pm based on the topics covered during all the technical and laboratory sessions, where all 38 participants successfully appeared the exam.

The Training Program was initiated by the department of Electronics and Communication Engineering and Center of Excellence in Nanotechnology, School of Technology. There were total of 40 participants registered and out of which 38 Participants have successfully attended physically on campus and all the 38 participants have completed the training successfully.

This Training Program was coordinated by Dr. Kaustubh Bhattacharyya, the faculty of the department, as a tailing part of the AMAZING NANO 2021, which was held during 19th to 24th April 2021. Because of the current pandemic situation, this particular part of the training was not conducted during the AMAZING NANO 2021, which was fully sponsored by All India Council for Technical Education (AICTE).



## Invited Talk – Prof. Sachin Kumar, IITG

The Department of Biosciences organised an invited talk by Prof. Sachin Kumar from IIT-Guwahati, Department of Biosciences and Bioengineering on 17th March 2022. The talk was divided into two sessions, with the morning session on Genetically Engineered Vaccines and the afternoon session on Drug design and Discovery. The Speaker covered some immunology basics and highlighted the Dendritic cell therapy which is used for treating several types of cancer such as glioma, melanoma, sarcoma, prostate, breast, ovarian and pancreatic cancer. The afternoon session highlighted the upcoming era of repurposing drugs for treatment of various diseases.

In his feedback on the session, Rynjah Dapboklang, MSc Microbiology, 2nd Semester student said, “We gained knowledge on innovative approaches on drug discovery. We also learned about an expedition called Global Ocean Sampling whose goal is to assess genetic diversity in marine microbial communities and to understand their role in nature’s fundamental processes. We also gained information about Protein-Drug Interaction or a Drugome and we came to know about the role of Molecular Docking in drug discovery. Molecular docking could predict both the binding affinity between ligand and protein and the structure of protein-ligand complex which is useful information for lead optimisation. Finally, we also came to know about the ‘Omics Revolution’ which is an integrated approach combining Genomics, Transcriptomics, Proteomics, Metabolomics, fluxomics for the advancement of systemic sciences and for human disease diagnostic and treatment. Both sessions were very informative”.

Insan Hamesha, a student of MSc Microbiology, 2nd Semester said, “The information shared on that program gave us some new perspectives and sowed in us a curiosity of dwelling more into the topics. Although for some of us, the topics might be new and a bit complex, I can definitely say that Professor covered the topics very accurately, quickly, straightforwardly, enthusiastically. It was a great session and I am looking forward to more programmes like this in the near future.”

The Programme was coordinated by Dr. Monika Soni, Asst. Professor, Department of Biosciences.

# INVITED TALK

17 March 2022



**Dr. Sachin Kumar**  
Associate Professor  
Dept of Biosciences & Bio-engineering  
IIT Guwahati

## World Sparrow Day 2022

On the occasion of World Sparrow Day on 21 March 2022, the NSS Unit of Assam Don Bosco University in collaboration with the Department of Zoology organized a programme “Living in Harmony with Birds”.

The resource person was Dr. Nilutpal Mahanta, Assistant Professor, Department of Zoology, Assam Don Bosco University. The programme began with a note of welcome by Miss Mebari Dorphan, Programme Officer, NSS Cell, Don Bosco University. This was followed by the felicitation of the Speaker, Dr. Nilutpal Mahanta. In his talk, Dr. Mahanta began by introducing the audience to the world of aves through a video showing different types of birds, their chirping and singing. These included Eurasian skylark, common snipe, goldcrest, corncrake, reed buntings, amongst others. The session was informative and interactive wherein the audience were engaged in activities that were included during the talk. Dr. Mahanta stressed on the importance of birds, stating their five ecological functions: scavenging, seed dispersal, pollination, insect control, and as indicators of environment. He concluded with the threats faced by the avifauna as a whole which is mainly attributed to anthropogenic activities like industrialization, pollution, habitat alteration and destruction, and hunting. This first session concluded with a vote of thanks by Miss Mebari Dorphan.



The second session was ‘Bird-watching with Nilutpal Mahanta’ where the students along with the NSS volunteers embarked on a brief bird-watching trip in the campus. The programme concluded with a short documentary on Manas National Park. There was a total of 96 participants including students of Arun Shankar Bhaduri Balika Vidyalaya, Kamarkuchi, Sonapur.



## Workshop on Learning Difficulties in Mathematics

Mathematics – though it plays an important role in all the branches of science, it is the most terrifying subject for majority of students. Students not only face difficulties in learning higher mathematics but also find it difficult during their schooling period. This happened mostly due to the lack of visualisation of its results and applications. To make the students realise their difficulties and helped them to learn how to overcome these difficulties the Department of Mathematics organized a one day workshop entitled ‘Workshop on Learning Difficulties in Mathematics’ on 19th May 2022.



The workshop started with a short welcome speech by Head of the Department, Dr. Hemen Bharali who welcomed the participants and invited them to take an active part to acquire as much new knowledge as possible from the workshop. The resource persons were Dr. Nirab. Ch. Adhikari, Institute of Advanced Studies, Guwahati and Prof. Bipan Hazarika, Dept of Mathematics, Gauhati University.

After the welcome speech, Prof Tarini K. Dutta, Department of Mathematics, explained the purpose of the workshop. Prof. Dutta’s speech was followed by a fruitful speech delivered by the Director of School of Fundamental and Applied Sciences, Dr. Monmoyuri Baruah.

Following this, Dr. Hemanta Kalita, Department of Mathematics, gave a short introduction of the first speaker of the workshop Dr. Nirab. Ch. Adhikari from Institute of advanced studies, Guwahati, Assam, India. Dr. H. Kalita felicitated Dr. Nirab. Ch. Adhikari with a Gamusa and a gift as a token of love from the department.

Dr. Adhikary delivered a lecture on “Various Problems of Mathematics” in the morning session and Prof. Hazarika delivered a lecture on “Difficulties from limits onwards.” in the afternoon session. Both the lectures were followed by lively Q&A sessions where participants’ questions were answered. A total of 104 participants attended the sessions.

## Student Exchange with Alfred Nobel University

As a part of the MoU signed with Alfred Nobel University, Dnipro, Ukraine, nine Students from the Department of Public Administration have enrolled in Alfred Nobel University’s Spring 2022 Online Exchange Program – Nobel Virtual for a semester (February-June, 2022).

Under this exchange program, the students will be taking up various courses from the Alfred Nobel University including: Theoretical Phonetics and Theoretical Grammar of English (3 credits)

- International Organizations (5 credits)
- Macroeconomics (5 credits)
- Introduction to Business Management (5 credits)
- International Management (6 credits)

Upon successful completion of the course, these students will receive a certificate of completion of the course, which will be the basis for academic recognition of credits received.





## Awareness Programme on Tobacco Consumption

An awareness programmes on “Harms of Tobacco Consumption & Steps towards Tobacco-Free Campus” was organized on 5th January 2022 in collaboration with the Uniservitate and the National Tobacco Control Programme (NTCP) team from the State of Assam (Kamrup and Jorhat District).

The sessions aimed at creating awareness about the harmful effects of tobacco consumption, its ill effects on health and the need to make Assam Don Bosco University campus a ‘Tobacco-Free Zone’. The first session on “Tobacco Free Educational Institute” was led by Dr. Arundhati Deka, Deputy Director of Health Services at Government of Assam cum State Nodal Officer at National Tobacco Control Programme, Assam followed by a session on “Tobacco & Risk Factors for Health” led by Dr. Mridul B. Nath, District Nodal Officer at National Tobacco Control Programme & District Tuberculosis Officer at the National Tuberculosis Elimination Programme, Kamrup. The third session was on “COPTA-2003 & Other Legislation Laws and Tobacco Monitor App” by Dr. Mrinal Medhi (State Programme Manager of the State Tobacco Control Cell at Assam). The final session on “Tobacco & Tuberculosis” by Dr. Simanta Borah, TB/HIV Coordinator at National Tuberculosis Elimination Programme, Assam was followed by a short address by Dr. Anisha Dutta, BDS on the need to care and protect one’s self especially from the intake of any tobacco product which leads to oral cancer.



The sessions concluded with all the participants taking a pledge to keep Assam Don Bosco University campus Tobacco-Free by saying NO to TOBACCO PRODUCTS in every sense. This event was the beginning of building a tobacco-free generation. A total of 113 students and faculty members attended the session.

## World Tuberculosis Day 2022

On the occasion of World Tuberculosis Day, an Awareness Program on Tuberculosis and Tobacco, with a screening test for oral cavity and cancers was organized by two units of NSS - Department of Education and Department of English in collaboration with Government of Assam, STCC, National Tobacco Elimination Programme, UNISERVITATE, and Seva Bharati Purbanchal on 23rd March, 2022.

The event started with the awareness programme in the Auditorium of Academic Block 1 in the morning with Dr. Arundhati Deka, Dr. Chiranjivee A Koirala, Dr. Anisha Dutta, Mr. Mrinal Medhi as the resource persons.

The first presentation was on Oral Cancer by Dr. Chiranjivee Koirala who stressed on the importance of self-examination of oral cancer and its immediate causes, to prevent the loss of lives due to ignorance on the matter, etc. He also elaborately demonstrated how to execute self-detection of oral cancer. Dr. Koirala’s informative speech was followed up by a pictorial presentation by Dr. Arundhati Deka, State Nodal Officer, NTCP, Assam. Her main point of focus was the global



fact sheets regarding the consumption of tobacco and its consequent relation towards the increase of Tuberculosis worldwide. Tuberculosis being a contagious disease, ways of preventing it from spreading through proper cough etiquette was emphasized upon by Dr. Deka as part of her concluding lines to her highly informative presentation.

The next presentation by Mr. Mrinal Medhi, State Programme Manager, Tobacco Control Cell, focused on Cigarettes and Other Tobacco Products Act – 2003 (COTPA) and the launch of the Tobacco Monitor mobile application in Assam. “The application was put forth to the public by the Government of Assam on 1st September 2021, and has gained a membership of around 100 as of now” mentioned Mr. Medhi. Each presentation was followed by a question and answer session open for the audience and panel for further discussion. The awareness program concluded with a vote of thanks delivered by Dr. Ranjita Chanda on behalf of the entire NSS Unit and ADBU family.

The next phase of the program, the screening of oral cavity and cancer was held at the Health Centre from 2:00 pm onwards by Dr. Koirala where 51 participants took part in it.

## Campus Bird Count 5.0

On the occasion of the ‘Great Backyard Bird Count’, eBird’s international event, ‘Campus Bird Count’, India’s sub-event, the Department of Zoology in collaboration with EcoClub, Don Bosco University organized the Campus Bird Count 5.0 on the 21st of February, 2022 in its Tapesia Campus.

The event started as early as 7:00 am and was conducted under the expertise of Dr. Nilutpal Mahanta, Assistant Professor of the Department and an eminent birder, who has been closely associated with the University’s bird count event and updating checklists at the eBird portal for the University since 2018. The event was also attended by hobbyist birdwatchers, Dr. Sangeeta Das, Assistant Professor, Department of Zoology, Pragjyotish College; Mr Himadri Bhuyan, renowned nature and wildlife photographer and Photography Mentor at Nikon School, India; Mr Dadul Kalita, Laboratory Assistant; and Miss Resmin Sultana, MSc 3rd semester student and member of EcoClub.



The small team of five was ecstatic to have sighted a record high of 76 avian species in the day-long event amidst the beautiful hilly tea gardens of Tapesia. Although the erratic weather kept the group on their toes, the number spoke of the rich diversity of birds in the campus, even on a rainy winter morning. The campus boasts of having a myriad of bird diversity and this year’s bird count added to its already documented count of 89 checklists available at the eBird portal for the University. The group was rewarded with a rare sighting of Slender Billed Oriole (*Oriolus tenuirostris*) as opposed to the never-before recorded Indian Golden Oriole (*Oriolus kundoo*) from last year’s checklist. Apart from the common bird species recorded, like Cattle Egret, Spotted Dove, Asian Barred Owl, Common Myna, Asian Palm Swift, Rock Pigeon, Pond Heron, and Common Hawk Cuckoo, the group also recorded the sightings of Black Hooded Oriole, Oriental Pied-Hornbill, Lesser Yellownappe, Greater Necklaced Laughing Thrush, Blue-winged Leafbird, Verditer Flycatcher, and around 5-6 species of Drongos, amongst others.

On the sidelines of the bird count event, the team also sighted a pair of Rhesus Macaque, a group of Capped Langurs, a few Himalayan Striped Squirrels, as well as heard the cry of a wild cat in the vicinity. The Vice Chancellor of the university, Father (Dr.) Stephen Mavely, briefly exchanged words with the group at the day’s start while expressing his desire to record Hornbills from the campus, and also wished the team the very best for a successful birding event for yet another year.

## Innovative Teaching Methods – Lecture Series

The Department of Education organized a National Level Lecture Series on “Pedagogy of the 21st Century – Innovative teaching methods” from 2nd – 8th March 2022, 2:00pm – 3:00pm. Six topics were selected and accordingly the resource persons were allotted as per expertise. At the end of every lecture, there was a Q & A session which was interactive and insightful for both the speaker as well as for all participants. The followings are the topics and resource persons:

| Sl No | Topics  | Resource Persons  |
|-------|---|---|
| 1     | Implications of Instructional Technology in the 21st Century                            | Dr. K.C. Kapoor, ADBU                                     |
| 2     | Techno Pedagogy   | Dr. Amar Upadhyay, Dibrugarh University                   |
| 3     | Cognitive Pedagogy: learning from Cognitive Science                                     | Dr. Krishna, KBVSAS University, Assam                     |
| 4     | Non-techno Pedagogy   | Dr. Boyillapalli Venkata Rao, Nagaland University, Kohima |
| 5     | Understanding Innovative Pedagogies-ways into the process of Educational transformation | Dr. Habibullah Shah, University of Kashmir                |
| 6     | Let’s talk our mind out- Mental Health and Well-being in Pedagogy                       | Mr. Sumit Dutta(NERIE, Shillong)                          |

The series was concluded by Dr. Tania Sur Roy, Head, Department of Education with a vote of thanks. A total of 449 participants registered for the lecture series.



## National DNA Day 2022

National DNA Day was celebrated on 25 April 2022 by the Research Journal Club, Department of Biosciences. This day is celebrated to honour the completion of the Human Genome Project in 2003 and the discovery of the DNA double helix structure in 1953.



The programme began with a prayer song by MSc 2nd semester students followed by words of encouragement by Dr. Probin Phanjom, Head, Department of Bio-Sciences followed by documentary video session. Apart from these, three events were organized on this day with the first event of the day being a Quiz Competition organised by PhD research scholars of the Department of Bio-Sciences. The quiz competition comprised three rounds with a total of 10 teams from School of Life-Sciences and Fundamental Sciences. This was followed by Science Model Display Competition. A total of six teams from the Department of Botany, Zoology and Bio-Sciences participated in the event. The competition was evaluated by Dr. Supriyo Sen and Dr. Vedant Vikram Borah. The last event of the day was Debate Competition which was judged by Dr. Maitrayee Dutta Swargiary and Dr. Probin Phanjom. The topic chosen for the event was “Cloning technology is a boon to the world”. A total of 75 students from the Department of Zoology, Botany, Bio-Sciences and Physics participated in the event. All the events were co-ordinated by Dr. Jayanti Datta Roy and Dr. Nazneen Hussain, Co-ordinator Research Journal Club.

## Training on Vermicomposting

The students of Bio-Sciences had learned the skill of Vermicomposting as one of the activities under Vita Scientia Club and as a follow up to this, a hands-on training was conducted by the faculty advisor, Dr. Nazneen Hussain to ensure skill advancement and encourage the concept of start-ups among young minds.



The objective of the project was to manage all the kitchen waste generated in the campus at Assam Don Bosco University. The training program focused on the key area of managing kitchen waste and reduce the emission of harmful chemicals from waste. The core idea of the program was to create an awareness among the students and help them contribute in their best possible way in reaching the sustainable development goals (SDGs) via scientific handling of wastes.

On successful completion of the training program the students of Bio-Sciences has developed a biofertilizer from the kitchen wastes at ADBU. The product was launched on 30th of March, 2022. The launch of the ‘biofertilizer’ was graced by the presence of our Vice Chancellor, Rev. (Dr) Fr. Stephen Mavelly.

## World Cocktails Day 2022

A workshop titled 'Master Class – World Cocktail's Day' was organized by the Department of Hospitality and Hotel Administration at Hotel Vivanta, Guwahati on World Cocktail's Day, 13 May 2022.



The main objectives of this workshop are:

- To make the students aware about the "Cocktail Day" celebration.
- To make them aware about the working environment of a premium standard bar of a hospitality outlet.
- To make students learn about the tools and technique used in a bar for the execution of the cocktails.
- To demonstrate to the students 'how to prepare a standard quality cocktail' and 'how to garnish a cocktail' with suitable ingredients.

The students arrived at Hotel Vivanta's Bar 'Octave' around 3:00 p.m. where they were greeted by the F&B manager on duty, Mr. Prateek and proceeded to the bar counter where Mr. Akash demonstrated one cocktail Bloody Mary and one Mocktail Mojito followed by Mr. Gaurav's insights. At the end of the visit, students had an opportunity to interact with the manager about the hotel's operational management and how it measures its environmental impact. Overall, it was an excellent experience for all and a fun way to learn about some basics of cocktails and mocktails. The programme was coordinated by Mr. Souvik Sarkar, Asst. Professor, Department of Hospitality and Hotel Administration.

## Workshop of Adobe InDesign & Reporting

A two-day workshop on Adobe InDesign and Report writing was conducted by the Department of Mass Communication on 18-19 March 2022. Miss Dolly Banerjee, Assistant Professor, AIMT and Miss Chetalini Sarangthem, Reporter and Editor at International Business Times Media (IBT Media) from Bangalore were resource persons for the workshop. Students of BA 2nd Semester and MA 2nd Semester from the Dept. of Mass Communication attended the workshop which began with a brief introduction about InDesign. Miss Dolly Banerjee shared information about how to make tabloid for newspapers, how to use text, tools, short cut keys, sizes etc.

Second day began with a brief introduction about Media Writing: Reporting and Editing with Miss Chetalini, continued with sharing knowledge about breaking news and scoops, basics about reporting, writing news stories for the web, qualities of a good reporter, laws regarding fake news in India, the workshop ended with examples and suggestions, books and research papers to read to become a good communicator.

## Quiz Competition by the Department of Education

On 8th March 2022, a Quiz Competition was organized by the Department of Education in commemoration of the International Women Day 2022 with the UN's theme of 2022 'Gender Equality Today for a Sustainable Tomorrow' a Quiz Competition was conducted by the Department of Education in association with the NSS Unit, Assam Don Bosco University under the able leadership of Dr. Tania Sur Roy, Head, Department of Education, along with Dr. Ranjita Chanda, Programme Officer, NSS and students of M. A. Education- Jrang Ch Marak, Martina Daimary, Shirantha Perera, & Romero D'Souza. The objective of the quiz was to recognize women who are working to build a sustainable future in the 21st century and who laid the foundation of the same in the past



## Session on Stress Management

The programme on 'Stress Management' was held on 23rd April, 2022. The session started with a welcome note and a prayer song followed by words of encouragement by the Director of Life Sciences, Dr. Prasanta Kumar Choudhury. Dr. Choudhury marked the significant stigma associated with mental health for optimum growth of an individual in both professional and personal grounds.

The session began with an introductory talk on "Prana" by Shri Ram Dhakal of GMCKS Lightworkers, Guwahati. The speaker addressed the audience on how the tested system of energy treatment is used as a medium to balance, harmonize and transform the body's energy processes. The audience were also introduced to different forms of spiritual healing that helps one's mind in focusing on the positivity and in relieving the legion of stress and problems we encounter on a daily basis. Total number of participants was 56.



Lastly, the speaker educated the audience to "Twin Heart Meditation" tool widely used to achieve Universal Consciousness. It is considered as one of the noble tool to raise ones vibrations towards higher state of awareness and expanded level of consciousness. The tool includes the heart chakra (the centre of the refined emotions) and the crown chakra (the centre of the divine union) to perform the meditation. The participants responded positively to the practice session on "Twin Heart Meditation". The audience mentioned that the session has helped them in stabilizing the disturbed energies and their cleansing the mind.

The session was successfully organised by the Department of Bio-Sciences under the supervision of the Faculty advisor (Dr. Nazneen Hussain & Dr. Vedant Vikram Borah) of Vita Scientia Club.

## Workshop on Cyber Security

A two-day workshop on Cyber Security was organized by the Department of Mass Communication on 1-2 April 2022 in collaboration with DataSpace Security Pvt Ltd.

In this workshop, the speakers - Mr.Samiran Santra, CEO & Co-Founder and Mr.Sashi Ranjan Jha, Senior Cyber Security Analyst, DataSpace Security Pvt Ltd stressed on the importance of having a sound knowledge and understanding of cyber security, malware and cyber-attack. They also advised the participants to do fact checking in social networks before believing and sharing information. The workshop, coordinated by Asst. Prof Emanuel L Hmar was attended by students from various departments and also from some colleges in Guwahati.



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## National Science Day

On the occasion of National Science Day 2022, the School of Life Sciences in collaboration with NSS Unit, Don Bosco University, organized a day-long programme on 8 March 2022.

The theme for this year's NSD is 'Integrated Approach in S&T for a Sustainable Future'. The programme began with a blessing by Fr. Narendra Lakra followed by a welcome address by Dr. Prasanta Kr Choudhary, Director, School of life Sciences. The event was inaugurated by Rev. Fr. (Dr.) Stephen Mavelly who, in his speech, encouraged the students to expand their horizons and explore the mysteries of life.



The events scheduled for the day included competitions in Extempore Speech, Quiz, Poster, and Photography. The competitions were based on topics related to the theme for the day and each of them had enthusiastic participants. The winners of the competitions include Shakil Imtiaz, Dapboklang Rynjah, and Resmin Sultana in Extempore Speech competition; Resmin Sultana and Rajkumar Dilipkumar Singh, Josh P. S. and Shakil Imtiaz, and Chayanika Baruah and Arpit Gameti in Brainteaser competition; Saikhom Angela Devi, Philberani N Sangma, and Manikho Simon and group in the Poster competition; and Rajlaxmi Kashyap, Sasa Apollo in Photomania 4.0 competition. There was a total of 200 participants.

## Lecture on 'The Art and Science of Natural History'

On 25th March 2022, the Department of Zoology, Assam Don Bosco University, in collaboration with Eco Club organized a talk on "The Art and Science of Natural History" as part of the Lecture Series 12. The resource person for the scheduled talk was Dr. Narayan Sharma, Assistant Professor and Head, Department of Environmental Biology and Wildlife Sciences, Cotton University. The event began with a warm welcome by student representative Kimdeilam DOUNGEL. This was followed by the lecture by Dr. Narayan Sharma, who familiarized the gathering with the topic on Natural History. He said that natural history is not a hardcore branch of science, rather, it mixes art and history in Science, something that "evokes a sense of romanticism", which is not embodied in ecology, more so in science, and natural history is more like a description of what we see or hear, rather than experimentation.



Dr. Sharma held that science in itself is very objective. He went on to explain the Hypothetico-deductive approach which includes a set sequence of events: observation, pattern, theory, that can never be violated in science. To justify this approach, he cited the example of Sherlock Holmes, who in all of its adaptations, tells Watson that he used the power of deduction to solve crimes. However, natural history is the opposite. One can see a departure from this hypothetico-deductive approach, into a more abstract perspective of science, that allows us to bend our understanding of nature. Natural history, according to him, is at the heart of building theories.

Dr. Sharma also shared tips on how to become an observant naturalist. He told the audience that the very first step to becoming one is to "cultivate curiosity and be mindful" of our surroundings. He encouraged the beginners and learners to ask 6 basic questions: who, what, when, where, how, why; to scrutinize, touch, smell, listen, measure; to conduct simple experiments; to teach others on the way to perpetual learning; to analyze observations, and finally to put knowledge into action.

As the lecture neared its end, Dr. Narayan Sharma shared his thoughts on natural history and its changing course through the



years. He threw light on the most important question, 'Is natural history dead?' He said that over the years, there has been a decline in engagement with nature. He quoted Richard Louv's "Nature Deficit Disorder", a disorder where the learner does not have enough knowledge or association with nature. Moreover, he also added that India has seen a dearth of naturalists. He listed some key reasons for such decline including but not limited to fancy modeling approaches, strict adherence to Popperian concepts, rise of hard sciences and fast result-oriented science, and intrusion of mathematics in biological sciences. However, there was good news. He also shared how this art of observation helps people not only to become good researchers but also works as a therapy to mild and moderate depressed minds.

He highlighted the "Renaissance of natural history" in recent times and said that more and more naturalists were entering this field of science. He was optimistic and thus prodded the audience to be more sensitive towards nature, be curious, learn the art and science of natural history, and contribute, however, little, to this fascinating endeavor of nature learning. Towards the end, Professor Saibal Sengupta, Department of Zoology, Assam Don Bosco University, felicitated Dr. Narayan Sharma with a token of gratitude. The lecture finally came to close with a vote of thanks by Kimdeilam Doungel. The programme drew 107 participants.

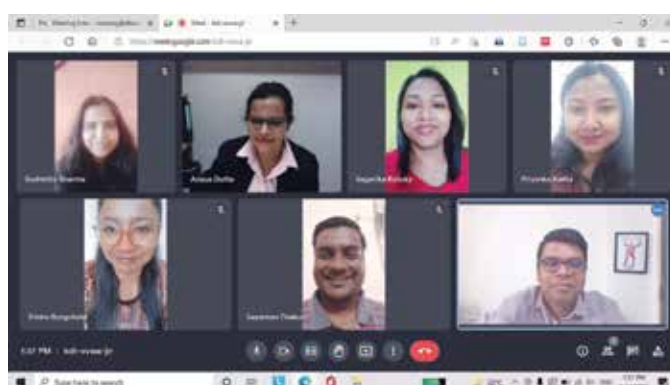
### Faculty Enrichment Programme for Dept. of English

An online Faculty Enrichment Programme on "Teaching English for Teachers: An Alternative Approach" was held from 2nd March to 11th March, 2022 for the Faculty members of the Department of English, Assam Don Bosco University. The course instructor for the programme was Ms. Ansum Dutta, an independent educator from Germany whose focus areas mostly concentrates on the integration of holistic teaching principles for a better student-teacher communication.

Outcome:

The first session started with an active interaction and participation from the teachers with the course instructor Ms.

Dutta. She discussed and compared the roles of a teacher to that of a student. Drawing examples from individual experiences of the participants, the importance of 7-38-55 rule was highlighted as a major rule for student-teacher interaction.



The Second session consisted of the discussions on the Course Design Frameworks- Providing multiple means of engagement, providing multiple means of representation and providing multiple means of action and expression. Classroom teaching based on PPP structure and ESA structure was discussed in accordance with the present teaching scenario practiced by the teachers. The third session focused on the different classroom strategies that can be employed for the students' engagement in the classroom. The usage of flipped classrooms to initiate better student participation in the classroom was also encouraged. Such a setting can be contrasted to the present traditional setup of classrooms in most educational institutes.

The fourth session was a continuation of the earlier session on effective classroom management. The usage of feedbacks from teachers and students for better teaching-learning techniques. Discussions on the mode of assessment- formative evaluation, assignments, group works and its timely assessment to further ensure a proper learning forum were highlighted in the session. The fifth session was dedicated to a peer reviewed discussion on classroom management. Each faculty discussed their classroom management techniques for effective communication. The course instructor also discussed a course designed by her. The session concluded with a vote of thanks by the Head of the Department, Dr. Saikat Banerjee.

### International Day of Forests

The Department of Botany in association with Bio-wizards Club celebrated the International Day of Forests on 21st March 2022 to raise awareness of the importance of all types of forests. A seminar was organized along with other activities. Shri Narayan Mahanta, IFS, ret'd CCF, MoEFCC, GOI, was invited to deliver a talk on the theme 'Forests and sustainable production and consumption' to around 200 participants including faculties from school of Life Sciences, Assam Don Bosco University. This was followed by an interactive session with the students.

## World Environment Day 2022



As the World Environment Day falls on Sunday this year (5 June), it was celebrated on 6 June 2022 at the School of Technology, Azara Campus. On this day the Environment Club at Azara Campus was formally inaugurated by Fr. Joseph Nellanatt, Pro Vice Chancellor; Prof. Manoranjan Kalita, Director, SOT; Dr. Amarjyoti Kashyap, President of Environ and Mrs. Archita B Bhattacharya, State Coordinator of WWF India Assam & Arunachal Pradesh by planting tree saplings at Azara Campus.

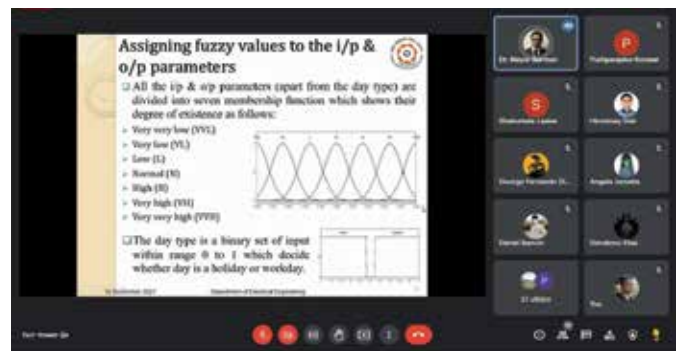
Addressing the club members, Dr. Kashyap spoke about solid waste management and asked the student to follow the principles of Reuse and Recycle in their daily life. He highlighted about the importance of waste segregation and Vermicomposting. In addition to that, Mrs. Bhattacharyya alarmed the students about rising extinction of wildlife and asked the students to act for the conservation of the planet. She briefed the students about the works being done by WWF India in the conservation sector and asked the students to be environmental leaders at their campus and community.

More than 109 students from different departments along with faculty members attended the programme. The members of the environment club planted around 10 trees in the campus and also held a photo exhibition and petition signing to educate university student community about the need to protect the environment.

## Webinar on Artificial Intelligence

A webinar on “Application of Artificial Intelligence for Solving Power System Load Forecasting Problems” was organized by the Department of Electrical and Electronics Engineering, School of Technology, Assam Don Bosco University (ADBU) on 12 September 2021.

Dr. Mayur Barman, Assistant Professor, Department of Electrical and Electronics, Aditya Engineering College, who was the resource person of the webinar, discussed the Power System Load Forecasting (PSLF) schemes used by power companies to predict the power or energy requirement for balancing the supply and load demand at all the times. PSLF is mandatory for the proper functioning of the electrical industry. Dr. Mayur explained how PSLF enables the utility companies to plan well since they have an understanding of the future consumption or load demand. Statistical tools and AI-based tools (ANN, SVM, Fuzzy inference system) were discussed under PSLF. Furthermore, he also mentioned that SVM hybridized with the suitable evolutionary algorithm is the most efficient method of PSLF in the present scenario. The webinar concluded with a Q&A interactive session between the resource person and the participants.



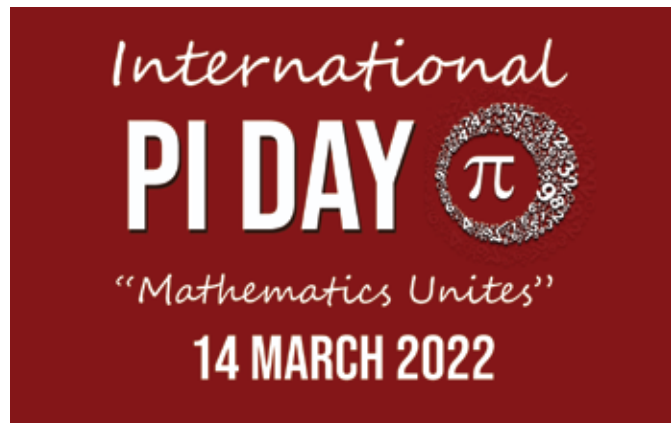
A total of 59 participants, consisting of BTech, MTech students along with the faculty members from the Department of Electrical and Electronics Engineering, attended the webinar.



## International Pi Day 2022

On 14th March, Monday, the Department of Mathematics observed Pi-day and International Day of Mathematics-2022 with some activities involving the teachers and students of the department with Prof. Dhiren Kumar Basnet, Department of Mathematics, Tezpur University as an invited guest to deliver a lecture on this occasion.

The programme began at 11 am, with a short welcome note from Manisha Gurung, a student of MSc second semester, followed by a short presentation by Puja Dey Sarkar from MSc fourth semester on Pi and Pi-day celebration. A short information on International Day of Mathematics was shared by Vimezonuo Kiewhuo, a student of MSc fourth semester. The invited guest, Prof. Basnet delivered a talk on the basics of mathematics and its applications and interacted with the students, which was followed by a speech competition and reciting digits of pi.



In the Pi digit recitation, many students took part and were able to recite up to many digits of Pi. Interestingly, the students were asked to memorise the digits on the spot and recite and their performances were quite impressive and entertaining. Pi Day was first organized by physicist Larry Shaw of the San Francisco Exploratorium on 14th March in the year 1988. They celebrated this day as birthday of great scientist Albert Einstein but the day 3/14 was coincidentally matched with the first three digits of  $\text{Pi}(\pi)$  i.e. 3.14. with both these coincidences they started to celebrate 14th March of every year as Pi day. In 2009, March 14 or 3/14 officially recognised by the U.S. House of Representatives to celebrate as Pi day.

## Swabalamban 2022



The departments of Computer Science & Engineering, Computer Application, Electronics and Communication Engineering, Electrical and Electronics Engineering and Mechanical Engineering organized Swabalamban-2022 on 11th to 16th July 2022. This programme aims to develop and improve the skills of unemployed youth in order to increase their employability and make them self-employed by providing free training in various skills. The training programme was organised in collaboration with UNISERVITATE to train participants in DeskTop Publishing (DTP) and PC Maintenance, Design of Solar Powered Chargeable LED lamps, Electrical House Wiring and Welding & Fitting. A total of 40 unemployed young men and women from the University's surrounding communities and from SOS Children's Village participated in the programme.

The DTP training focussed on teaching fundamental computer skills, software installation, PC formatting, and document Printing and Scanning. Each participant in the Solar Powered LED Lamps training created LED lamps with solar panels that will be used to charge the batteries using sunlight; the batteries can also be charged electrically. To become independent electricians, participants in the house wiring trade are instructed in the fundamentals of Electrical connections and wiring, as well as the testing of installations. The process of operating the machines and tools is demonstrated to the participants, who then engage in hands-on training in Welding & Fitting in order to start their own businesses with limited capital.

The programme was successfully completed on July 16, 2022. At the closing ceremony, participants were awarded certificates with a hope that they will continue their work in the areas they were trained and eventually become self-employed.

## SashaktBalika 2022



'SashaktBalika'- a Digital Training Programme for Little Girls of State Home for Women, Guwahati was conducted by VanitAgrata', the Women Empowerment Cell, School of Technology, Assam Don Bosco University on 30th May 2022.

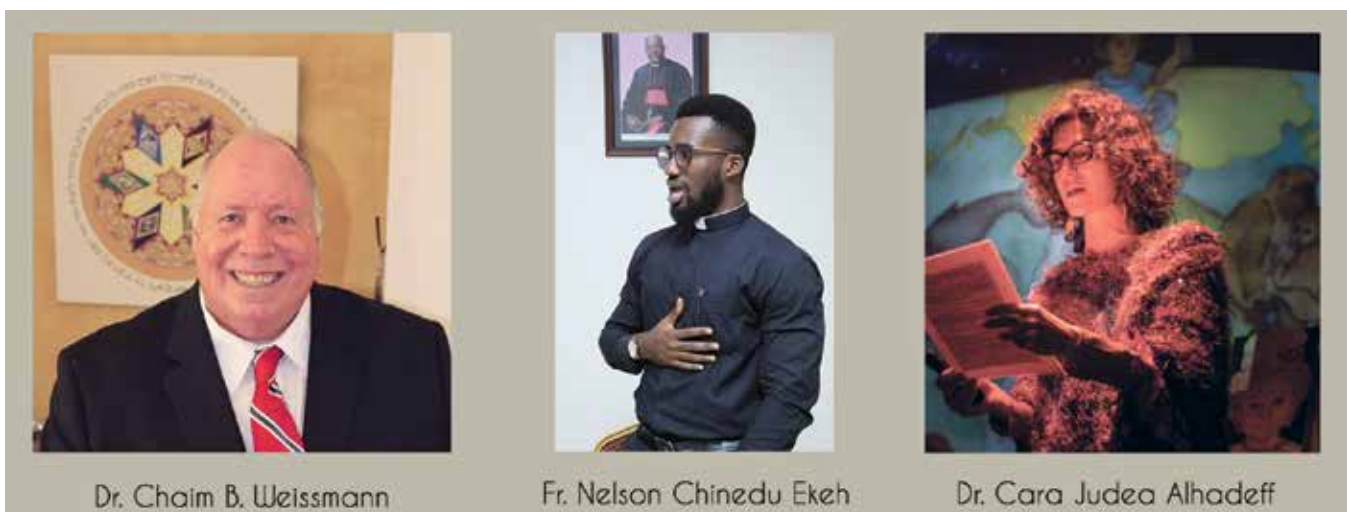
The participants were young girls from State Home for Women, Jalukbari, Guwahati who are provided shelter and training for rehabilitation. 'VanitAgrata' has successfully completed this training program with 22 participants who showed keen interest to learn the basics of computers, Desktop Publishing, and Internet usage. The programme ended with a feedback session by the participants and certificate distribution.

## E-Conference on Peace Education

The Department of Education organized an International E- Conference titled 'Peace Education Towards Security, Stability and Sustainability' with the main theme of the conference being Peace Education.

Three Experts were invited for three different Topics: Ms. Cara Judea Alhadeff (Ph.D) on Ecozoic Resiliency: Antidotes to Greenwashing – Induced Environmental Racism, Mr. Chaim B. Weissmann(Ph.D) on Sustaining Quality Education in the Midst of a Pandemic – Case study of a Private school in South Africa, Fr.Nelson Chinedu Ekeh(SDB) on Umuonwu or Umuchukwu? Understanding our differences bridging through Peace.

In the midst of current situation being stressful due to the ongoing clashes between Russia and Ukraine, 'security' is a key issue hence all parameters must be taken into consideration for effective responses. Peace Education is a Primary Pillar for preventing armed conflict and violence, saving lives and freeing up limited Resources for social needs. It teaches the next generation to better understand and address problems that can undermine the rule of law and prepare students to serve as the next generation leaders in creating a more equitable society. The conference was thus organized with the purpose to educate the young minds and make them better individuals by incorporating peaceful thoughts and approaches towards life.



Dr. Chaim B. Weissmann

Fr. Nelson Chinedu Ekeh

Dr. Cara Judea Alhadeff

The first speaker Dr. Chaim B. Weissmann spoke on the decline of public education in South Africa and how the Horizon Academy has worked to battle this issue. He spoke on Horizon Academy's activities and how the covid affected their academy as well as the Education System in Africa. Dr. Chaim also spoke about the belief of the horizon academy being the three E's of Education – Experience, Expand, Encounter. In his words, 'A Horizon Education will enable children to foresee, know and anticipate what is 'beyond the Horizon' as they face new challenges in their lives'.

The second speaker Fr. Nelson Chinedu Akeh (SDB) addressed on understanding the differences between Umuonwu and Umuchukwu, the traditional African religion followers and the Non-traditional Christian followers. Fr. Nelson went on to elaborate on how discords would often arise between two parties intentionally or unintentionally causing ruckus among them. In his book he gave a detailed explanation about the existence of the traditional religions in Africa and how the coming of other religions brought a rift among the people. Churches have now become business and its members often try to exploit people although it is not the case always. This difference in religious belief has more than once resulted in clashes among the people. He expressed his hope that patience and perseverance will eventually bring peace and relayed a message that despite the differences in beliefs and ideals, we can still live peacefully in harmony if we are considerate of each other.

Lastly Dr. Cara Judea Alhadeff (Ph.D) spoke on Ecozoic Era Resiliency via a pre- recorded video where she explained the topic.

### Webinar on Recent Trends in VLSI and Embedded System

The Department of Electronics and Communication Engineering organized a one day Seminar on "Recent trends in VLSI and Embedded System in Industries and it's Career Prospects" on 26th February 2022 in collaboration with Department of Electronics, Lalit Chandra Bharali College, Maligaon, Guwahati and with technical support from CoreEL Technologies Pvt. Ltd., Bangalore and was coordinated by Dr. Kaustubh Bhattacharyya, Assistant Professor, Department of ECE, ADBU.



After a short inaugural sessions, the 1st technical session began with Mr. Mriganka Gogoi, Assistant Professor, Department of Electronics and Communication Engineering giving a talk on Fundamentals on FPGA and its application in IoT followed by the 2nd Technical session on "Recent trends and career prospective of VLSI and Embedded System" by Ms. Dimpee Baruah, Senior Analog Design Engineer, SEVYTECH Systems, Bangalore. Mr. Shekhar Suman Borah, Research Scholar, department of ECE, Indian Institute of Information Technology, Guwahati (IIITG) conducted the 3rd technical session on Memristor Design. The last two technical sessions were combined together and delivered by Mr. Arun John Mathias and Mr. Pronadeep Bora, Sandeepani School of Embedded System Design, Training division of CoreEL Technologies, Bangalore. They conducted hands on technical session on state of the art technologies on FPGA and embedded system using different EDA tools. All the technical sessions were live on Google Meet. The Webinar, attended by 35 participants successfully ended with a brief Valedictory Ceremony.

### Webinar on Career Options after Engineering

A webinar on 'Career Options after Engineering Degree' was organized by the Department of Mechanical Engineering 31st January 2022.

The webinar was conducted by renowned career counsellor of the state and Head, Department of Mechanical Engineering, Dr. Buljit Buragohain. Apart from clearing the doubts of the students while choosing the right career, Dr. Buragohain also responded to all the questions. He gave detailed explanation on how with hard work and dedication, all the engineering branches students can mould a successful career for themselves and also informed them that he is available for career counselling over the phone (9435188630) every Saturday from 6p.m. to 9p.m. In the webinar, he also explains about different options apart from higher studies after getting an engineering degree. Dr. Manoranjan Kalita, Director, School of Technology, ADBU also spoke in the webinar.



Dr. Buljit Buragohain



## A Talk on 'Internship Exposures'

On 10th March 2022, Mr. Taushif Ahmed, an alumnus of Civil Engineering Department visited the Department and delivered a talk on 'Internship Exposures', attended by the Department's 6th and 4th-semester students. Mr. Ahmed completed his B.Tech degree in 2015. In this session, the Director of SoT, Prof. Manoranjan Kalita also shared his thoughts on Internship Exposures.

In this session, he highlighted various internship programmes offered in ITTS to improve their skills and knowledge in civil engineering and agriculture. He discussed various topics included in the internship program, such as construction drawing in Auto Cad, Drip Irrigation, Remote Sensing and GIS. He shed some lights on Universal Transverse Mercator (UTM), a plan coordinate grid system named for the map projection.



Taushif Ahmed

Mr. Taushif Ahmed served as a young professional field engineer and project engineer in the Northeastern Regional Water and Land Management Institute (NERIWALM), Government of Assam in Tezpur from August 2015 to January 2022. Mr. Ahmed started urban Planners and Associates, Civil Engineering Consultancy Services at Tezpur, Assam, in May 2017 as a founder and Consultant Engineer and also started the Institute of Technical Training Services (ITTS) at Tezpur, Assam, in 2019. A total of 140 students from 6th and 4th semester and all faculty members of the Civil Engineering Department were present in the two-hour session.

## Training on Communication

As a part of training and placement activity in the department, an online skill development programme on Communication Skills was conducted on 4 June 2022. The students of BCA 6th Semester enrolled for a course "Be a Master Communicator" offered by FutureSkills Prime, NASSCOM.

The main objectives of the course are as follows:

- Utilize the core values of communication in various workplace situations
- Communicate impactfully by balancing emotions and information, when required
- Listen mindfully and empathetically to better understand the needs and perspectives of others
- Ask the right questions at the right time, to gather relevant information

All BCA 6 Semester students have enrolled for the course offered for free and some have completed it with certification while some are still on it.

## Workshop on Game Development

A Game Development Workshop was organized on 28 May 2022 using the Unity 3D Engine by Coding Club of the Department of Computer Applications and the Department of Computer Science and Engineering at the Conference Hall of Azara Campus.

The workshop was attended by 29 participants from CSE & BCA programme. The resource persons of the workshop were Gaurav Kalita (BCA 6) and Tanmoy Kashyap (CSE 6).

Unity is a cross-platform game engine developed by Unity Technologies, first announced and released in June 2005 at Apple Worldwide Developers Conference as a Mac OS X game engine. The engine has since been gradually extended to support a variety of desktop, mobile, console and virtual reality platforms. It also offers game developers a possibility to engage with players through providing insights, data, and tools to help the developer efficiently refine their game experience, retain players, and grow their game.



## Survey Camp for Civil Engineers

The Department of Civil Engineering organized a one-week survey camp for the 6th semester students of Civil Engineering from 14-22 March 2022.

The camp was held at an open land of 20 acres belonging to the STD Brick Industry, Hathkhowapara, Azara, Guwahati. The whole class of 73 students took part in learning different surveying techniques through various activities under the guidance of the faculty members and laboratory assistants of the Department. The camp was coordinated by Dr. Chinumani Choudhury from the Civil Engineering Department. All faculty members and staffs from Civil Engineering Department contributed for a successful completion of the survey camp.



## Alumnus Talk - Helish Hojai

The Department of Mechanical Engineering organized an online Alumnus talk on 30th January 2022 by Mr. Helish Hojai, a Depot Officer (Manager) in Terminal & Operations, Reliance Industries Ltd.

Mr Hojai started with a brief introduction and gave the student a very thorough idea about the opportunities and challenges to get the good job. He emphasised the importance of developing inter-disciplinary knowledge without wasting a single opportunity. He spoke about his job journey as an operation officer at Repono Private Limited to Reliance Industries Limited designated as Depot Officer (Manager) in Terminal & Operations. He also informed the students about the opportunities in NSI (National Safety Institute), Board of Apprenticeship Training (BOAT) and National Apprenticeship Training Scheme (NATS) portals and encouraged them to enrol in them after graduation while searching for a job. He also touched upon the importance of life skills at a workplace including sincerity, politeness, integrity and anger management.



Helish Hojai

The students from 1st, 5th and 7th semester actively participated in the programme and interacted with Mr Hojai, resulting in a very lively and fruitful interaction. The programme ended with a note of thanks from the Head of the Department, Mrs. Leena H Nemade.

## International Conference on Literature, Environment & Climate Change

The Department of English collaborated with the Department of English and Public Relations, RGNUL, Punjab; Shastri Indo-Canadian Institute, New Delhi; Punjab and Pollution Control Board, Patiala in organizing International Interdisciplinary Conference on "Literature, Environment and Climate Change" on 7-8 April 2022.

Prof. (Dr.) Adarsh Pal Vig, Chairman Punjab Pollution Control Board, was the chief guest for the inaugural session. Dr. Prachi Kaul Director, Shastri Indo-Canadian Institute was the guest of honour whereas Fr. Joseph Nellanatt, Pro-Vice Chancellor, Assam Don Bosco University was the special guest of the event. Prof. Dr. Richard Pickard, Department of English, University of Victoria, Canada delivered the keynote address. Prof. G.S. Bajpai, Rajiv Gandhi National Law University, Patiala focused on the emerging discourse of environmental justice in the present times while addressing the audience. Dr. Adarsh Pal Vig, Chairman PPCB, delved into the factors responsible for environmental degradation. He emphasized that individual responsibility has a great role to play in improving the damaged ecosystem. Dr. Prachi Kaul spoke about the importance of pollution free environment for good health. Fr. Joseph Nellanatt talked about the role of literature in raising eco-consciousness. Prof. Dipendu Das, Dean, Assam University, Silchar, Prof. Nibir Ghosh UGC Emeritus Professor, Prof. Eugene O'Brien, Head, Department of English Language and Literature, the Mary Immaculate Institute of Irish Studies, Ireland, Prof. Sanjukta Dasgupta, Convenor, Advisory Board, Sahitya Akademi, New Delhi, spoke about several environmental issues in their plenary talks. Prof. Desmond L Kharmawphlang, Cultural and Creative Studies Department, North-Eastern Hill University, Shillong, Prof. Anshuman Kar, De-

partment of English, University of Burdwan, Dr. Elisabetta Marino, University of Tor Vega, Rome, Italy and Bootheina Majoul, Associate Professor, High Institute of Languages of Tunis, University of Carthage, Tunisia also deliberated on several important issues pertaining to Environmental Justice on the second day of the conference. 35 paper presenters from India and Abroad voiced eco concerns of different regions in 7 technical sessions. Dr. Navleen Multani, Convener and Dr. Saikat Banerjee Co-con- vener of the conference thanked the esteemed guest and the papers presenters for making this conference a grand success.

### WOS A Awarded to Dr. Shunan Kaping

Dr. Shunan Kaping completed her PhD from the Department of Chemistry Assam Don Bosco University in the year 2016. She has recently been awarded the Women Scientist Scheme A (WOS A) fellowship.

This is one of the most prestigious fellowships awarded by the Department of Science & Technology (DST), Government of India to conduct postdoctoral research. This research project is aimed at design, synthesis, structure elucidation and anti-malarial activity studies of novel and interesting quinoline-ferrocene hybrids. This research project is for a duration of three years and will be executed at Assam Don Bosco University. This indeed is a remarkable achievement of an alumna of the University.



### Industrial Visit by EEE Students

The Department of Electrical and Electronics Engineering conducted an industrial visit at ELEN Engineering at Kendukuchi, Guwahati, Assam on 10 June 2022. As a part of the curriculum a group of 10 students from B.Tech 8th semester and 3 faculty members visited the site.

Mr. Mriganka Borah from ELEN Engineering guided the students' visit and demonstrated the transformer. He elaborated on the construction of each part of a core-type transformer and showed them the insulations, low voltage, and high voltage windings, core, conductors, transformer oil, etc. In addition, he explained to the students about losses, routine testing, and different types of cooling schemes used in transformers.



The idea of attending such an industrial field visit is to give a physical overview to the students about the real-world electrical systems operation and it is expected to bridge the gap between industry-academia knowledge. Dr. Shakuntala Laskar, Dr. Bikramjit Goswami, and Dr. Smriti Dey from the department of Electrical and Electronics Engineering accompanied the students.

### Special Talk on Data Science

On 4th April 2022, a special talk on the importance of data science in present world was organized by the Department of Civil Engineering. The resource persons - Mr. Gaurav Das and Mr. Istiaque Haque, co-founders of EduViden Pvt Ltd gave lectures and interacted with the students.

As it is said that "Data is the new OIL", their initiative is to train students in the field of data analytics which is the most in demand skill set of the 21st century. Their start-up company helps the students holistically in building a well-rounded profile with the necessary skill set to provide value to businesses in various ways.

In this session, they highlighted various internship programmes offered in "EduViden" to improve their skills and knowledge in Data Science. They discussed how our future is going to depend on the artificial intelligence and machine learning. Mr. Das also discussed about how being a civil engineering student they can also build their carrier in data science.

All the students from 8th semester and faculty members of the Civil Engineering department attended the two-hour session of the invited talk as this was a part of career advancement programme.



## RESEARCH PULSE

During this period of May to August 2022, all the activities of our doctoral students were taken forward with fifteen of them presenting their research proposals, six presenting their pre-submission seminars and ten completing their doctoral studies by successfully defending their research work. The details of these activities are presented hereunder

### RESEARCH PROPOSAL PRESENTATION LEADING TO REGISTRATION

Altogether fifteen of our research scholars, presented in the following table, have successfully completed their research proposal presentation and have applied for registration

| Scholar / Department   | Supervisor             | Title  |
|--|------------------------|--|
| Priyanka Mittal Commerce                                       | Dr. Chyanika Sarma     | Extension of Bank Credit to Self Help Group in Kamrup Rural District of Assam  |
| Shreepasad Shreeram Manohar Mechanical Engineering             | Dr. Vikramjit Kakati   | Development of tissue-engineered bone scaffold using 3D printing technology for lower limb bone tumor  |
| Rupam Kumar Das Mass Communications                            | Dr. Alpana Choudhury   | Role of print media in curbing ethnic conflict in Assam: A study with special reference to the Assam Tribune and Asomiya Pratidin                          |
| Asem Sushmita Devi Botany                                      | Dr. Sangeeta Sarma     | Morpho-biochemical characterisation and anti-microbial properties of the medicinal plant, <i>Leucas aspera</i> (Willd.) link                               |
| Zannatun Firdowzy Dey Physics                                  | Dr. Debajyoti Dutta    | Exploring new Physics possibilities at long baseline neutrino experiments  |
| Karabi Barman Botany   | Dr. Jyotishman Deka    | Genetic variation in <i>Quercus</i> species along altitudinal gradient of Eastern Himalaya, India  |
| Barasa Sarma Botany  | Dr. Raj Kumar Pegu     | Study on Seed Borne Fungal Microflora of French Bean ( <i>Phaseolus vulgaris</i> L.) and management practices with special reference to Nalbari District   |
| Tara Rangrime A. Sangma Chemistry                              | Dr. JN Vishwakarma     | Synthetic investigations involving acetylcoumarin analogues leading to novel molecular hybrids with potential biological properties                        |
| Ranadeep Bhuyan Computer Applications                          | Dr. Gypsy Nandi        | A hybrid machine learning approach to detect and classify brain tumour with multi-modal data augmentation for processing segmentation and predictions      |
| David Baker Shanglai Electronics and Communication Engineering | Dr. Jhimli Kumari Das  | Study and development of green synthesized nanomaterial based pesticide and a pests and pesticides detection optical sensor system for tea plants of Assam |
| Sanjay Das Education   | Prof. K. C Kapoor      | Effectiveness of constructivist approach on the cognitive competencies of Upper-Primary School-Going Learners in Science: An experimental study            |
| Saji Lukose Education  | Dr. Agnes Humtose      | Effectiveness of secondary school teachers in relation to self-confidence, professional commitment and academic achievement of students in Assam: A study  |
| Memjuklet Mallai Education                                     | Dr. Agnes Humtose      | Status of Secondary education with reference to input, process and output in Khasi Hills District of Meghalaya: A critical Study                           |
| Moitreyee Das Economics  | Dr. Pranti Dutta       | Community Based Tourism – A tool for sustainable tourism with special emphasis on Chakrasila Wildlife Sanctuary  |
| Pulak Mili Economics   | Dr. Abdur Rashid Ahmed | Livelihood vulnerabilities to flood hazard: A study of flood plains in Assam   |

### PRE-SUBMISSION SEMINAR

Six of the research scholars, presented in the following table, have completed their Pre-Submission seminar and submitted theses for examination

| Scholar / Department                        | Supervisor             | Title   |
|---|------------------------|---|
| Lima Hazarika Biotechnology                 | Dr. Sypryo Sen         | Studies on Apolipoprotein E4 variant in coronary artery disease and its role as a potential therapeutic target                        |
| David F. Marbaniang Management              | Dr. KS Rajput          | An empirical investigation into the entrepreneurial intention of the youth in Meghalaya   |
| Sharmistha Jha                              | Dr. Umarani Pappuswami | Information and Communication technology in teaching – learning in Meghalaya  |
| Mass Communications                         | Dr. George Plathottam  | New media and filmmaking pedagogy: A critical exploration of their relationship in the context of India                               |
| Alisha Lallijee Psychology                  | Dr. Chandita Baruah    | Sexual behaviours in adolescent with intellectual disability  |
| T. Alemla Longkumer Education               | Dr. Anjali Karmakar    | An analytical study of the two-year B. Ed. Programme as perceived by teacher educators and student teachers under Nagaland University |
| Vanlalhruaia Computer Science & Engineering | Dr. Y. Kirani Singh    | A new approach to face recognition based on binary images   |

### PHD VIVA VOCE EXAMINATION LEADING TO AWARD OF PHD DEGREE

Ten of our research scholars, presented in the following table, from various departments had their thesis defense leading to the completion of their doctoral studies from Assam Don Bosco University. Formal award of the PhD degree took place at the 11th Convocation organized on 10 September 2022

| Scholar / Department   | Supervisor                                      | Title   |
|--|---|---|
| Rajani Karki Chhetri<br>Mass Communications                    | Dr. George Plathottam                           | Reconstructing Khasi ethnic identity on social media: A netnographic study on an online group   |
| Daisy KJ<br>Social Work  | Dr. Lukose PJ                                   | Effects of psychosocial intervention program on promoting the mental health of the children of migrant workers by strengthening their self-efficacy             |
| Amarjit Deb<br>Education                                       | Prof. KC Kapoor                                 | Effectiveness of modular instruction and computer assisted instruction on the academic performance of postgraduate students in commerce: an experimental study  |
| Sonali Chakraborty<br>Education                                | Dr. Anjali Karmakar                             | A study on socio-psychological behaviour of the schedule tribe children and its impact on academic achievement at secondary level in Dhemaji district of Assam  |
| Indrajit Chatterjee<br>Management                              | Dr. Amitava Sarkar                              | Entrepreneurial characteristics as determinant of business performance in micro and small entrepreneur in Darjeeling district, North Bengal, West Bengal        |
| ChamimSultana Ahmed<br>Microbiology                            | Prof. Ranjan Das and Dr. Lopamudra Homchaudhuri | Induced mutagenesis study of morphological and physiological characters and development of moisture-stress-tolerant variety of Indian mustard (Brassica juncea) |
| Lima Hazarika<br>Biotechnology                                 | Dr. Supriyo Sen                                 | Studies on apolipoprotein E4 variant in coronary artery disease and its role as a potential therapeutic target  |
| D'Silva Jovi Jose Salvador<br>Computer Science and Engineering | Dr. Uzzal Sharma                                | Automatic text summarization of folktales in selected Konkani books using machine learning techniques   |
| Jismon Mathew George<br>Management                             | Dr. Ak Paul                                     | Compassionate care: Antecedents, consequences and organisational implications   |
| Taithul Rita Chinnehoi Zou<br>Social Work                      | Dr. Lukose PJ                                   | A study on resilience of adolescents in a conflict state of Manipur: Role of spirituality and digital technology usage  |

### **ACHIEVEMENT:** Tham Khasi Annotated Corpus - Dr. Medari Janai Tham

Natural language processing or NLP is the application of computational technique to the analysis and synthesis of human language both speech and text. The development of corpus, which is a collection of machine-readable text that is sampled to be representative of a particular language, is an essential step in building of NLP systems for a language. Such corpora exist for languages such as English, German, Chinese, Hindi, Bengali, Punjabi, etc. However, not all of these corpora are easily accessible. In English the most widely used corpora is the British National Corpus (BNC) and it is popular among researchers due to its accessibility. Where Khasi is concerned, there is no such publicly available corpus and hence it is referred to as a resource poor language in so far as the application of NLP is concerned. A major contribution in this field has been made with the release of the Khasi annotated corpus titled "Tham Khasi annotated corpus" which is freely accessible through the European Language Resources Association (ELRA) via the link <http://catalog.elra.info/en-us/repository/browse/ELRA-W0321/>. The corpus is manually tagged using the formulated BIS (Bureau of Indian Standards) POS (Parts-of-Speech) tagset to ensure standardised tagging with other Indian languages. The corpus was developed by Dr. Medari Janai Tham who recently was awarded Ph.D. from the department of Computer Science and Engineering, Assam Don Bosco University for her thesis 'Shallow Parsing for Khasi' under the supervision of Prof. Pushpak Bhattarcharya of IIT Bombay. The details of the corpus including the annotation scheme and the development of the Khasi NLP tools are available in research papers published as part of her Ph.D. and available in <https://grammarkhasi.in>, which also a companion website of the book "Ka Grammar Khasi Da Ka Jingdro" by the same author published by Macmillan Education, India. The other contributions made by the scholar include the BIS Khasi tagset, a Hybrid Khasi POS tagger, an HMM Khasi POS tagger, an NLTK Khasi POS tagger, an HMM Khasi shallow parser, and a Khasi shallow parser using bidirectional gated recurrent unit, seminar report on 'Towards Standardization of Khasi language for Computational Purposes' available in the above-mentioned website. Some of the NLP tools for Khasi are available online for users and researchers to run any Khasi sentence and verify the response of the taggers and parser in <https://medaritham.pythonanywhere.com>.

