

# SPARK



A Newsletter for Don Bosco University family, alumni and friends

Volume 11 | Issue 1 | 2019



Golden Jubilee of Fr. Stephen



Amazing Nano 2019



National Conference on Trends in Modern Physics 2019



Training Local Unemployed Youth on Carpentry, Masonry, Welding etc

## Message from the Vice Chancellor

*The other day, I was asked to share a few thoughts with the students of St Clément's College at Nowgong as they were being felicitated on completion of their course of studies in Philosophy. As we ourselves, here at the University, are into the last few weeks of class, I thought I would share some of those thoughts with you in this issue of 'Spark'...*

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*Someone is reported to have told a group of young people at a Commencement ceremony, 'You can Google for an answer. You can Google for a mate. You can Google for a career. But you can't Google to find what's in your heart – the passion that lifts you skyward'.*

*Randy Pausch, famous for 'The Last Lecture', speaking at a Convocation at Carnegie Mellon University, said, "You will need to find your passion. If you did not find it **by now**, you will find it later, in your 30s or 40s; but do not give up on finding it and following it. You will not find it in things or money because, the more you have the more you will use that as a metric; and would like to get more. The important things are those that fill you from inside. It will be grounded in people, in your relationship with people'.*

*'Finding the passion that lifts you skyward' - Interacting with a lot of young persons of late, one begins to sense a sort of déjà vu, a feeling of having run out of steam early in life, a distinctive lack of enthusiasm, a kind of listlessness in just keeping on doing what they do day after day, a lack of joy, a feeling of having made a pact with oneself to just be (just exist) as though it is too late in the day to find fresh energy and enthusiasm and effort to discover a passion for life, a sense of mission, and the exhilaration of chasing a vision, cultivating a sense of restlessness that should last the whole lifelong....*

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*To find your passion, you will need to cultivate the courage to follow your heart and intuition. They somehow already know what you truly want to become. Everything else is secondary. It is your heart that will carry you in the direction of your dreams. Once you have found it, it is this passion, it is dreams that will define whether you live, or you just exist.*

*Eventually, you will find what you love to do – it will be something that you will enjoy thinking about and telling stories about for many years to come; and when that happens, you will find the strength to pour yourselves into it. You will learn to trust your intuition on these important decisions in your life. I believe that's why they say, 'in life, learn to make the small decisions with your head and the big decisions with your heart'. The key is to listen to your heart and let it carry you in the direction of your dreams.*

*Believe me, it's possible to set your sights high and achieve your dreams. You can do it with integrity, character, and love. And each*



*day that you're moving toward your dreams without compromising who you are, you're winning.*

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*Speaking of passion, of dreams, of living exciting and happy lives, let me also emphasise that life is not only about finding your passion, and chasing your dreams. It is also about a profound conviction that your passion, your dreams are to be shared, and that everyone whose lives you are privileged to touch must walk away finding, nursing and nurturing dreams of their own... Charles Péguy, the French poet, expresses it beautifully when he says that your greatest satisfaction in life will be to see those 'who will find your doorway. Stay a while, and walk away, knowing they too can find a dream'...*

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*I have spoken about the need for finding your passion, your dreams, trusting your intuition for the greater decisions in life...*

*Let me conclude with one more thought – It is about another equally meaningful pursuit, very much aligned with those mentioned above – a lifelong pursuit to 'find and savour an inner joy in life'. For this, cultivate an innate ability to look for and to spot the little, and often unexpected, sources of joy in daily life. They help to make your day. They soothe your pains, and help you forget the barbs and arrows that mark everyone's life.*

*In this context, it is good to remember too that joy comes often in the shape of the angels who come in when you least expect them, when your own wings are broken. Learn to spot them and be thankful for them.*

*As College gets over, and life goes on (for life for some, for this year for many), let me wish you something of the freshness in life that comes with finding your passion, something of the joyfulness of spirit that results from loving what you do and getting good at it as the days tick by, and something of an infectious enthusiasm that will prod you to awaken and nurture dreams for others along the way...*

**Fr Stephen Mavelly**  
**Rector & Vice Chancellor**

## Faculty Development Programme Spring Semester 2019

The Faculty Development Programme, Spring 2019 was held on 7-12 January 2019 at the University's Tapesia Campus on a theme 'Towards Outcome Based Teaching-Learning Approach'. The resource person was Prof. K.C. Kapoor, HoD, Department of Education and the faculty members of the Department of Education, Assam Don Bosco University.

During this programme, Prof. KC Kapoor, who has over 34 years of teaching and had been training teachers in various states took the participants through various steps on how the University can achieve its goal of adopting Outcome Based Teaching-Learning Approach.



## Golden Jubilee of Fr.(Dr) Stephen Mavelly

The University's founding Vice Chancellor Fr. (Dr) Stephen Mavelly on 2nd March 2019 completed 50 years of his religious profession, which marks the beginning of his journey as an educator who dedicates his life to educate, teach and learn with the young and the youth as a follower of St. John Bosco (popularly known as Don Bosco). A short felicitation ceremony was organized by the University at the Atrium of Academic Block II at Tapesia Campus.



Born on 20th November 1950 to Joseph Mavelly and Theresa Edassery in Irinjalakuda, Kerala, he joined Seminary in Shillong, Meghalaya and graduated from Salesian College, Sonada and then studied Theology at Sacred Heart College, Shillong from 1977-79. After his ordination in 1979, he served as a Principal of Don Bosco School, Shillong from 1981-1986 and then went on becoming the Principal of St. Anthony's College, Shillong in 1986 till he left for the United States for Doctoral studies in 2002. During his tenure as a Principal of St. Anthony's College, he won for the college the singular distinction of being the first to be accredited in Eastern India and the first to be awarded the highest 'Five Star' status by the National Assessment and Accreditation Council of India (NAAC).

After receiving his Ph.D. from California Coast University & Brown University, he came back to India and served as the Principal of Don Bosco College, Guwahati. While serving as the Principal of Don Bosco College, Guwahati, he was entrusted with the task of establishing the first Don Bosco University in India. He played a pivotal role in the conceptualization and planning of the University and continues to steer its development as it seeks to create for itself a unique niche among national and international institutions of higher education.

He has devoted over forty years for the education of young men and women in North-East India – a mission to which he has dedicated his outstanding talents in a variety of fields: literature, media, psychology, communication, theology, management and pastoral work.

Fr (Dr) Stephen Mavelly became the first Vice Chancellor (President) of Assam Don Bosco University in 2008 and continues to serve in this capacity to date.

## Plantation Drive on Don Bosco's Feast Day

The Feast Day of St. John Bosco was observed on the 31st January 2019 at Assam Don Bosco University, Tapesia Campus to celebrate the life of Don Bosco. At a special assembly held in the morning, a short drama which included a video on the life of Saint John Bosco was presented at Academic Block II.



To commemorate this day, the Centre for Development Studies and Initiatives (CDSI) in collaboration with the Eco Club organized a programme “Nurturing Friendship Through The Power of Green” in the campus based on the theme of Friendship and Sustainability.

The event commenced with a welcome address delivered by Ms. Hazel B. Wahlang, Co-ordinator CDSI. To further enliven the day, the Music Club performed a soulful rendition of Michael Bolton’s “Lean on me”. The Vice Chancellor, Fr. Stephen Mavelly, in his address, laid emphasis on the importance of unity among the students and encouraged each one to create an atmosphere of cooperation and friendliness.

The Vote of Thanks was proposed by Ms. Iakidakmen Kharmalki, a student member of the Eco Club. The event concluded with the Plantation Drive alongside the “Dreamer’s Lane” and “Poet’s Lane” which witnessed enthusiastic participation of faculty members, staff, and students of the University and neighbouring villages. To make the Programme more memorable, each of the trees was befriended by a group of students or faculty or staff, who adopted the tree and will nurture the tree, and pass it on to another group to continue nurturing it. Against each sapling is a name tag of the students, faculty, and staff to symbolize an acknowledgment of the special relationship of FRIENDSHIP fostered here at Assam Don Bosco University.

## Collaborative Research with Stanford Medical School

Assam Don Bosco University and Stanford Medical School are planning to work together in the area of Nanotechnology applications in medical diagnostics and drug delivery. This was decided in a meeting between Prof. Aynur Unal of Stanford University, Fr. Dr. Stephen Mavelly, Vice Chancellor, and Prof. Sunandan Baruah, Director, Center of Excellence in Nanotechnology (CoEN), Assam Don Bosco University. Prof. Unal said that the collaboration will start in the areas of nanofiber extraction from natural cellulose and their use in the development of smart medical patches that will interact with nanobots placed within the human body.



Prof. Unal also interacted with the Nanotechnology group at Assam Don Bosco University led by Prof. Sunandan Baruah. In a meeting with Fr. Joseph Nellanatt, Pro-Vice Chancellor, ADBU, along with Prof. Manoranjan Kalita, Director, School of Technology, Prof. Sunandan Baruah, Director, CoEN and the team members of Nanotechnology group at the School of Technology, Prof. Unal expressed that she is impressed with the quality of research and various innovative research projects being undertaken at the CoEN and the concept of Poor Man’s Nanotechnology. In this collaborative research, the Indian Institute of Technology, Guwahati and Christ University, Bengaluru will also be involved.

## Inauguration of Spring Semester 2019

Spring Semester 2019 was inaugurated on 17th January 2019 at both Azara and Tapesia Campuses. In a short function held at Tapesia Campus, toppers of last examinations were felicitated by the Vice Chancellor, Fr. Dr Stephen Mavelly.

At Azara Campus, Prof. Manoranjan Kalita, Director of the School of Technology welcomed all the students to the new semester and urged them to begin this academic session with full energy and positivity. The SoT also observed Shilpi Diwas to commemorate the death anniversary of Rupkonwar Jyoti Prasad Agarwala as a part of the inauguration programme. Floral tributes were given to him and Mrs. Hemashree Bordoloi spoke on the life of Rupkonwar detailing his early life and how he became a legendary figure in the Assamese culture.



## North East NSS Festival

In order to inculcate a sense of responsibility and social commitment among the youth of North East India, the Regional Directorate of NSS, Guwahati in collaboration with the Ministry of Youth Affairs and Sports, Government of India and Assam Don Bosco University, Sonapur organized a five day North East NSS Festival from 18 to 22 March 2019 at the Tapesia Campus of the University.



Mrs. Patricia Mukhim (Padma Shri awardee), Editor, Shillong Times was invited as the chief guest at the inaugural programme. Other dignitaries who graced the occasion include Fr. (Dr.) Stephen Mavelly, Vice Chancellor of Assam Don Bosco University, Fr. (Dr.) Biju Michael, Registrar of the University, Dr. Tushar Rane, Chief Field Office, UNICEF Assam, Mr Vara Prasad, CEO, Assam Cancer Care Foundation, Mr Saiyyad Ali, State Director, Nehru Yuva Kendra, Mizoram, Mr Dipak Kumar, Director, Guwahati Regional Directorate of NSS and Dr. Riju Sharma, Director of Humanities and Social Sciences, Assam Don Bosco University.

Ms. Patricia Mukhim, while addressing the NSS volunteers from eight states of North East said, "Volunteerism must begin at home. It must begin with me. It must begin with you. We don't have to depend to do things on anyone that is personal to us and only then we can take it to the world. When we volunteer for something, there are some impacts that are tangible, that you can see and experience. There are other impacts that are intangible but having positive impacts. Giving is a great act and has a very positive impact on the person you give and on you as well. The law of nature says, we only get back what we give. We must be touched by the situations around us. If we want a better world then we have to be involved, but that involvement can sometimes be painful. We have to pay a price if we want to change the world. It's not going to come easy. We have to make peace. This region is used to be known as a conflict zone. We have to make it a peace zone. All of us have a duty to show the world that we are capable of making peace".

The event saw 637 NSS Volunteers and 12 NSS programme officers from 14 Universities and colleges from across eight north-eastern states, participating in the festival and took part in Life skills education along with games, adventure sports and trekking, literary competitions, art and elocution competitions, and an educational tour of the city.

At the closing ceremony held on 22 March, Retired Army Brigadier Mr. William Sturgeon, Meghalaya Vigilance Officer was the Chief Guest. While congratulating the NSS volunteers from the eight states he said, "The task of volunteerism is of vital importance to the nation and its people. We must do things which the community wants, not what one feels like doing. You must

keep in touch with the community. Community welfare services must be conducted after a lot of deliberation and planning.” Addressing the NSS Volunteers, Mr. Dipak Kumar, Regional Director, NSS, Guwahati Regional Directorate urged the volunteers to share their experience, saying, “The training and learning during the programme must be shared to others. You have to propagate this message to others. You are the ambassadors of change. This programme was organized in order to install a sense of group living, the dignity of labor and showcasing and sharing unique and beautiful cultures with others.”

### NSS Integration Camp at the University

The Regional Directorate of National Service Scheme (NSS), Guwahati, in collaboration with the Ministry of Youth Affairs and Sports, Government of India and Assam Don Bosco University organized a six-day National Integration Camp at Tapesia Campus of the University. Mr. Ramesh Chandra Borpatra Gohain, who is the Advocate General of Assam, officially inaugurated the integration camp on 9 March 2019 at 11 a.m.

The Inaugural Function was presided by Fr (Dr). Stephen Mavelly, Vice Chancellor, Assam Don Bosco University along with invited dignitaries Mr. Dipak Kumar, Regional Director, NSS, Mr. Nabin Kr. Sarma, Advisor, USTM, Pro Vice Chancellor Fr Joseph Nellanat, ADBU and Fr (Dr) Biju Michael, Registrar, ADBU.



While inaugurating the event Mr. Gohain said, “National Integration has two dimensions, one is an emotional dimension and another is a spiritual dimension. We should give much emphasis to Indian Cultural Heritage which speaks about the spiritual dimension of integration. The young generation must go through the preamble of the Indian Constitution as it is the classic example of spiritual integration”. He also added that ‘Democracy is a form of governance where everyone plays a vital role, including the poorest. Each privilege that we enjoy comes from the contribution of every citizen. Therefore, it is needed to maintain the spiritual integrity in order to be conscious of the rights of others and also at the same time, we should always remember that as we have rights, we have duties to perform as written clearly in the constitution’.

Addressing the NSS volunteers the Vice Chancellor, Fr (Dr) Stephen Mavelly said that ‘National integration is all about blending of colours that embrace languages and religions of the world like a kaleidoscope which celebrates the diversity like the colours of the rainbow that blended and bound together into an unbreakable thing of beauty.’

A little over 200 NSS participants and 9 NSS Programme Officers from across 14 states participated in the camp from 8 to 14 March 2019. NSS NIC events included technical sessions on life-skills, Self-Defence, Shramdaan, literary competitions, outdoor games, cultural programmes, community engagement programmes, adventure sports, and trekking activities. Through this event, the NSS aims at promoting unity in cultural- diversity and enhancing social responsibility.



NSS was launched on 24th September 1969 by the then Education Minister Dr. V.K. R.V. Rao. It is an initiative taken for the higher National education system to inculcate a spirit of service among students, through first-hand community engagement programmes, while they pursue their studies.

## One Week Training on Masonry and Bar Bending

The Department of Civil Engineering, Assam Don Bosco University, in association with Numaligarh Refinery Limited (NRL), conducted a one week Mason Training Programme under the banner of SWABALAMBAN 2019 from 11-16 March 2019. The main objective of this programme was to enhance theoretical knowledge and practical skills of unemployed local youths who want to pursue civil engineering construction works, bar bending and steel fixing occupation as a means of livelihood.



**Masonry Training:** The training began with a theory session by Mr. Pinku Deka, a technical expert from Dalmia Cements Pvt. Ltd., which dealt with the basic concepts of construction materials and state of the art construction techniques and safety measures. Mr. Mustafizur Rahman, Assistant Professor of the Department of Civil Engineering deliberated on the technical aspects of different construction works viz. formwork and scaffolding, RCC and PCC work, reinforcement and detailing, plastering, construction safety practices, and curing. Mr. Mukul Kalita, Assistant Professor, with the assistance of laboratory technician Ms. Pallavi Sharma, gave a demonstration of different laboratory tests that need to be conducted in the field of civil engineering construction. During the training programme, Md. Abdul Kayum, a renowned mason from Azara contributed in the programme as a trainer to the participants.

During the course of the training, he gave elaborate practical insights into the preliminary construction activities like brick work, plastering, bar bending, concreting, etc. During the programme, the participants, under the supervision of Abdul Kayum, gained hands-on experience in constructing brick walls, plastering of walls and casting of RCC columns and beams. Ten unemployed youths from different corners of Assam participated in the training programme.

**Bar Bending:** The training began with a theory session by Mr. Mustafizur Rahman, Assistant Professor, Department of Civil Engineering who deliberated on reinforcing bars and its types, importance and uses of rebars in construction work. Various practical aspects such as minimum and maximum sizes of bar, stirrups, spacing, concrete cover, lapping, curtailment, etc. were also discussed at length. Mr. Mukul Kalita, Assistant Professor, with the assistance of laboratory technician Mr. Diganta Bhattacharjya, gave a demonstration of different laboratory tests that need to be conducted in the field of bar bending and steel fixing works.

Mr. Md. Saijuddin Ali, an expert in bar bending and steel fixing works from Azara was the trainer and he gave elaborate practical insights into various types of bar bending tools, use of these bar bending tools, measuring instruments and bar cutting machines required for steel work. The participants gained hands-on experience in different methods of bar cutting and bending. Eleven youths from various parts of Assam participated in this programme.

## Republic Day Celebration

The University on 26th January celebrated India's Republic Day by hoisting a flag and listening to speeches from the students and a short message from the Vice Chancellor at Tapesia Campus.

At Azara Campus, the School of Technology organized a special assembly on 25th where Mrs. Subra Mukherjee, Assistant Professor – Department of ECE, delivered a speech on the significance of Republic Day and how India became a Republic. All the students, faculty and staffs took a national pledge and the programme concluded with National Anthem.



## One Week Training on Welding, Fitting and Carpentry

The Department of Mechanical Engineering, successfully conducted the training programme on Welding, Fitting and Carpentry from 11 – 16 March 2019 under the banner of Swabalamban 2019.

The training was divided into three phases. First, a brief introduction to the workshop was given to the participants where they have been introduced to various safety procedures to be followed while working with various machines and tools. Next, they were briefed with standard procedures to be followed for operating the machines and tools required for fabrication. Third, the details of the product to be designed and fabricated were demonstrated to them. This was followed by hands-on experience sessions for the participants. The sole objective of the free training programme was to impart skills required for taking up welding, fitting and carpentry as a livelihood.



**Carpentry:** The training on Carpentry started with an introduction to the carpentry shop of the University. Measuring, marking, cutting and holding tools with demonstrations of half-lap joint and bridle joint were also demonstrated. Sessions on a grinding machine, drilling, reaming and filling were conducted along with practical on cutting operations required for designed fabrications. A total of 9 unemployed youths successfully completed the training programme. The resource person that delivered the training to the participants is the workshop instructors of the School of Technology -Mr. Kanjyoti Kalita, Mr. Kalyan Das, and Mr. Champak Deka.

**Welding and Fitting:** The training programme, attended by 24 youths began with theory sessions, after which the participants were introduced to the Welding Shop where measuring, marking, cutting and holding tools with demonstrations of lap joint, butt joint, welding in a straight line were demonstrated. A brief discussion on engineering modeling of the job to be fabricated was explained to the participants. The project plan for fabrication was followed as decided. Tools introduced in the earlier sessions were used for various cutting operations of the raw materials for preparing the base of the job. A practical session on fitting shop gave good exposure prior to preparing the final product. Session on a grinding machine, drilling, reaming and filling was conducted along with practical on forging operations required for the designed fabrications.

The resource person that delivered the training to the participants was the workshop instructors of School of Technology, Assam Don Bosco University and external trainers from reputed organizations. The names of the resource persons are Mr. Brojen Dihingia, Mr. Houshen Ali, Mr. Nalini Kumar Sharma, and Mr. Satrajit Pathak. An invited talk was also delivered by Mr. Anshuman Mahanta, Field Engineer, Jacobs Engineering India Pvt. Limited on the topic, “A brief overview of the nature of fitting and welding jobs in a Refinery Project”.

## Community Awareness Programme on First Responder

On 29th January 2019, an awareness programme on First Responder was organized by National Disaster Response Force(NDRF) at the Azara Campus of the University where five persons from NDRF demonstrated various techniques to be adopted during a disaster.

Addressing the students, they explained the importance of having a sound knowledge of how to respond in an event of a disaster as North East India falls under a high risk of the earthquake – classified under zone 5. In an interaction session, they shared various tips and ‘to do’ list in an event of a disaster and showed the students how to take care of peo-





ple who are injured. They showed the audience how to make a stretcher using a blanket and two rods, how to stop bleeding from a bad injury, how to take care of the head injury, giving CPR to someone with a heart attack, etc and other life-saving tips.

The University convey its sincere gratitude to the NDRF for conducting such an awareness programme through which students learned valuable lessons on saving lives.

## AmazingNano 2019

A Short Term Training Programme (STTP) on Nanotechnology christened “Amazing Nano 2019” was conducted from 25th February to 2nd March 2019 by the Center of Excellence in Nanotechnology (CoEN), ADBU & Dept. of ECE, SoT, ADBU in collaboration with IASST, Guwahati and IIT Guwahati.



At the inaugural ceremony, the Convenor Prof. Sunandan Baruah, Director, CoEn of the University gave an overview of the STTP after which the Chief Guest, Shri K. Baruah, Director NIELIT shared his thoughts on the workshop and declared “amazingNANO-2018” open. The inaugural function also witnessed the release of the first issue of nanoFlash, an e-magazine of the CoEN by Shri. K. Baruah, Director NIELIT, Fr. Joseph Nellanatt, Pro-Vice Chancellor of ADBU, Dr. Navajit Saikia, TPO, Assam Engineering College, Dr. P. K. Boruah, Gauhati University, and Prof. Sunandan Baruah, Director, CoEN at ADBU.

Topics covered during this workshop were given below:

1	Introduction to Nanotechnology and Basics of Material Science & Nanoscience	Dr. Indrani Dakua
2	Synthesis of nanomaterials	Prof. Sunandan Baruah
3	Introduction to various characterization techniques	Mr. Karen Das
4	Next generation nanoscale Circuits: Concept to Reality	Prof. Panayee Datta
5	Bright Organic Nanomaterials	Prof. Parameswar K. Iyer
6	Use of ImageJ and Origin for Analyzing Different Parameters	Mr. Dipjyoti Sarma and Mr. Arnab Sarkar
7	Nanotechnology towards Energy Applications	Prof. Somobrata Acharya
8	Prospects of Nanotechnology in the field of Research, Entrepreneurship, Jobs and Higher Studies.	Mr. Kumaresh Sarmah
9	Nanoparticles and its effect on Polymers	Dr. Neelotpal Sen Sarma
10	Carbon-based Nanomaterial	Dr. Devasish Chowdhury
11	Issues of Nanotechnology	Dr. Achintya Bezbaruah

Apart from the talks listed above, there were also hands-on sessions. The first session Different rules to be followed in a chemistry lab and a brief idea about the lab sessions and the idea generation session conducted by Mr. Bikash Agarwal and Mr. Arnab Sarkar, where participants performed hands-on the synthesis of ZnS and Gold. The second session was taken by Mr. Arup Borah. In this, a hands-on session on how to design electrodes using pcb was delivered. The participants were also given a live demonstration on the imprinting and etching process to do device fabrication. The participants also paid a visit to IIT Guwahati in the Central Instrument Facility and Centre for Excellence In Nanoelectronics & Theranostic Devices where they got the opportunity to see many sophisticated instruments like Atomic Force Microscope (AFM), Scanning Electron Microscope (SEM), X-Ray Diffraction (XRD) Spectroscopy, Single Crystal XRD, UV-VIS Spectrometer etc. in the CIF. The participants were also introduced to the Organic Electronics Lab at CIF, where they were exposed to the organic way of designing and fabricating photovoltaic cells. At the Centre for Excellence in Nanoelectronics & Theranostic Devices, they were given an introduction to different facilities like Molecular Printing System, Raman Spectrometer, Confocal Microscopy, Electron Spinning Device, Thermal Evaporator, etc.

## Trends in Modern Physics 2019

The Department of Physics organised a two-day national conference on “Trends in Modern Physics 2019 (TiMP 2019) on 22-23 February 2019. A large number of participants from various universities, colleges and institutes of Northeast India and a few delegates from other parts of India and abroad presented their research in the event.



At the inaugural session, Dr. Samrat Dey, Head, Department of Physics said, “It is a felt need by the Department to hold yearly national conferences on ‘Trends in Modern Physics’ as in Northeast India no such yearly conference of Physics, where young researchers can share their ideas and get suggestions and helps from renowned academicians of the region and other parts of the country”. After Dr. Ngangom Aomoa presented a brief overview of the conference, the plenary talk by Professor A. Srinivasan, Dean of Faculty Affairs, Indian Institute of Technology Guwahati followed. Professor A. Srinivasan stressed on the importance of conducting such regular conferences and the need to grow together in science. The conference then proceeded with four oral technical sessions with a number of invited talks and contributory talks dedicated to the trust areas of plasma physics, astrophysics & cosmology, material & nanophysics, particle physics and nuclear physics, stretched during these two days.

The invited speakers included Dr. Mayur Kakati from Centre of Plasma Physics – IPR, Guwahati and Dr. Sumita Sharma from Institute for Advanced Studies in Science and Technology, Guwahati, Dr. Rajib Kar from Bhabha Atomic Research Centre, Mumbai, Dr. L. Herojit Singh, National Institute of Technology, Manipur and Dr. Dulen Saikia from Joysagar College, Sibsagar, Prof. Atri Deshmukhya from Physics Department, Assam University, Silchar, Prof. B. N. Jyrwa from North-Eastern Hill University, Shillong and Dr. Joydeep Ghosh from Institute for Plasma Research, Gandhinagar. This was followed by a poster presentation session wherein a large number of posters were presented.

The conference ended with a valedictory session where Fr. (Dr) Stephen Mavelly, the Vice Chancellor, congratulated the organisers and participants for a successful conference. Dr. Ngangom Aomoa was the convener of the conference and Mr. Parag Bhattacharya and Mr. Dipjyoti Sarma were the co-conveners. Around seventy participants attended the conference.

## Industrial Visit to Electric Sub-Station

A group of 27 students from B.Tech., 8th Semester and 2 faculty members of Electrical and Electronics Engineering (EEE) Department, visited the site of 400 KV Grid Sub-Station under AEGCL situated at Kukurmara, Mirza on 28 February 2019. The purpose of the visit was to witness the real world operations of electrical systems and related issues and to bridge the industry-academia gap.

Mr. Rakesh Shah from AEGCL guided the students’ visit in which they learned about various equipment and sections of the sub-station. Mirza substation has two incoming lines from Bongaigaon and Silchar. The substation has six transformers (to step down to a voltage of 200KV, 132KV, 33KV) and one auxiliary transformer of 80 KVA 33/0.415 kV to supply the loads in the substation. The students also visited the control room of the substation that consists of a computerized system, two surge panels (which are connected with various equipment using optical fiber cables), relay units, etc. In addition, Mr. Shah explained to the students about the different parts of the substation, viz. lighting arresters and post insulators, CVTs with wave traps (for PLC purpose), earth switches, line reactor of 3 MVAR (used with the line incoming from Silchar to compensate for reactive power), CTs and PTs, Bus reactor, SF6 CBs etc.



## Workshop on LaTeX

A two-day workshop titled Workshop on LaTeX Documents 2019 (WLD 2019) was organized by the Department of Physics on 29 - 30 March 2019 at Tapesia Campus.



The purpose of this workshop was to enable students, research scholars and faculty members from various institutions in the north-eastern region to learn the fundamentals of scientific and technical documentation using LaTeX, a free and open source software. The importance of the workshop can be gauged from the fact that today LaTeX has become the de facto global standard for scientific publication. The participants were provided with the hands-on experience of developing LaTeX code on Linux workstations for different types of documents by eminent resource persons in the field.

The workshop was open to interested participants from all disciplines. 62 participants from different universities and colleges in the north-eastern region participated in the workshop. The pre-requisites for the workshop included a basic awareness of computer systems, as well as an interest in using a typesetting system for academic documentation.

The first session of the workshop comprised of an invited talk delivered by Prof. Debojit Sarma. Prof. Sarma illuminated the auditorium with various aspects of documentation using LaTeX, thereby setting the stage and context for the workshop.

The technical sessions for the first day were continued in the Computer Lab. Each participant was provided with a PC running Ubuntu 16.04 LTS. The participants were introduced to LaTeX by Mr. Parag Bhattacharya, Dr. Debajyoti Dutta and Mr. Kaustabh Bhattacharyya (from the Department of ECE, ADBU). They were provided with various resources on the subject that is available online for anyone who wishes to get started with LaTeX. The participants were shown the options regarding the installation of the LaTeX compiler and IDE software on Windows and Linux systems. This was followed by hands-on sessions demonstrating the basic structure of LaTeX documents, followed by an introduction to typesetting mathematical equations. The hands-on sessions of the second day began with a continuation of working with the math mode in LaTeX. The post-lunch sessions were dedicated to the incorporation of tables and graphics in a LaTeX document, finally followed by a session on the basics of writing a full-fledged academic document.

The workshop concluded with a valedictory function in which some of the participants shared their feedback and experiences. Dr. Monmoyuri Baruah, Director of the School of Fundamental & Applied Sciences, ADBU and the chief guest of the session distributed the workshop certificates to all the participants.

## Two Day Workshop on Plastics Products

The Department of Chemistry in collaboration with the Central Institute of Plastics Engineering and Technology (CIPET), Guwahati organized a two-day workshop called “Awareness and Skill Upgradation on Design, Fabrication, Processing, and Testing of Plastics Products” on 8-9 February 2019, for the students of the Department. The two-day program consisted of a day of presentations on different aspects of plastics technology including Design, CAD/CAM/CAE, Tooling & Mould Manufacturing, Plastics processing, Testing, and Quality Assurance.

The participants also visited CIPET where they were shown various designs, manufacturing and plastic processing in the labs including the processing techniques of plastics waste. 70 students participated in this workshop.



## Workshop on Arduino and Raspberry-Pi

The fourth edition of a two-day Workshop on Arduino and Raspberry-Pi (WAR-2019) was organized by the Department of Electrical and Electronics Engineering (EEE), School of Technology on 16-17 February 2019 at the Azara campus of the University.

The workshop kicked off with a formal inaugural session, lighting the ceremonial lamp by the dignitaries and a prayer by Pro Vice-Chancellor of ADBU - Fr. Joseph Nellanat. Prof. P. K. Brahma- Director of Girijananda Institute of Management and Technology (GIMT), Guwahati and Ex-Principal of Assam Engineering College, graced the occasion as the Chief Guest; along with the other dignitaries from ADBU- Mr. P. Joseph (HoD, Dept. of HSS), Prof. Shakuntala Laskar (HoD, Dept. of EEE), and Faculty and Staff Members of EEE.



The main objective of the workshop was to give the participants an insight of various applications of Arduino and Raspberry-Pi, the former being an open-source platform to develop engineering projects whereas the latter is a handy small single-board computer. Covering from the basics, this workshop included Hands-on projects using Arduino and Raspberry-Pi, which are the latest trends in many electrical and electronics applications.

The resource persons of the workshop were Assistant Professors of the Department - Mr. Gitu Das and Mr. Jyoti Kumar Barman; assisted by other faculty members - Mr. Papul Changmai, Mr. Sunil Deka and Mr. Hironmay Deb. A total of 18 students from various colleges in the State participated in the Workshop.

## Workshop on Basic Plasma Physics 2019

The Physics Department organised a “Workshop on Basic Plasma Physics 2019” on 29-30th January 2019 at the Auditorium of Academic Block –I, Tapesia Campus.

The workshop was organized mainly for the undergraduate students who may think of taking up plasma physics as their specialization in the Master Degree studies. They were introduced to the basics, applications, current trends in research and scope of plasma physics.



The workshop consisted of a series of talks by experts, viz., Dr. Mayur Kakati and Dr. B. J. Saikia from CPP-IPR and Dr. Ngangom Aomoa from Physics Department, ADBU. The participants also performed experiments with plasma system in the Plasma Laboratory of Physics Department. Furthermore, a visit to CPP-IPR was organised. The scientists and faculty members in CPP-IPR explained to the participants, current research in plasma physics in their sophisticated laboratories. In the valedictory session, Prof. J. N. Vishwakarma, Director of Research, ADBU, distributed certificates to the participants.

Around 70 participants attended the workshop from different institutes of the North-Eastern region. Dr. Ngangom Aomoa was the convener of the event and Mr. Parag Bhattacharyya and Mr. Dipjyoti Sarma were the co-convener.

## Symposium on Research Grants and Higher Studies

A one-day Symposium on “Funding Opportunities for Research Grants and Higher Studies in India and Abroad” was held on 3rd April 2019 at Tapesia Campus.

There were three prominent speakers in the symposium - Prof. Pawan Sharma, DBT Research Professor from College of Veterinary Sciences, Khanapara, Guwahati, Dr. Sukhomay Pal, Co-Coordinator, TOCIC IIT Guwahati who is also an Associate Professor in the Department of Mechanical Engineering, IITG and Dr. Samrat S. Kumar from Country Representative of EURAXESS, India. The speakers gave insight into the many opportunities for research grants and higher studies which are made available by different government departments in India and also by the European Commission.

University and College teachers, Ph.D. scholars and master degree students from different institutions of Guwahati including IAAST, Cotton State University, AIMT, NERIM, and Don Bosco University attended the symposium.



## Inter College Electrical Quiz Competition



The third edition of the annual Inter College Electrical Quiz Competition (ICEQC-2019) was organized by the Department of Electrical and Electronics Engineering (EEE), on 28 March 2019 at Azara Campus.

The main objective of the event was to popularize Electrical and Electronics Engineering among the students and to motivate them towards safe practices in this domain of engineering.

Twenty-two teams from different engineering colleges and universities across northeast India participated in the competition. After a written test, six teams were selected for the final round and were named after pioneers of electrical engineering, viz., Kirchhoff, Tesla, Faraday, Maxwell, Henry, and Edison.

Team KIRCHHOFF comprising of Kangkan Bhuyan and Gaurav Deb from Girijananda Chowdhury Institute of Management and Technology, Guwahati- the winners of last year, defended their title by winning the coveted first prize. Team EDISON comprising of Rishav Saha Choudhury and Sikder Arif Mohammad from ADBU, and team HENRY comprising of Ariston Shabong and Jerrymeo P.L Nongkynrih from ADBU bagged the second and third prizes respectively. All the winning teams were awarded cash prizes, mementos, and certificates.

## Google Workshop on Investigative and Data Journalism

In order to provide digital investigative skills to media persons, media educators and students of journalism, a daylong workshop on Fundamentals of Research, Investigative and Data Journalism was conducted by the Department of Mass Communication on 19 March 2019. The workshop was conducted by Google Teaching Fellow Ms. Geetiga Rustagi.

This training was a part of Pan-India Training for journalists, media educators and journalism students conducted by Google News Initiative India Training Network across India who also conducted similar training across Indian cities. Some of the topics of the training included Fundamentals of Digital Investigation, Data Journalism, YouTube Live Streaming, Google Trends, Google My Maps, Digital News Gathering, Data Visualization Tools, Emerging Trends in Data Journalism, Digital Security, and Safety and Career opportunities in Data Journalism.

### A Talk on 'Electrical Safety' by NPTI-NER

A talk on Electrical Safety was organized by National Power Training Institute (NPTI), NE Region for the B.Tech students of Electrical and Electronics Engineering (EEE) Department on 30 March 2019 at the Azara campus of the university.

Mr. Sambit Gantayat, Deputy Director of NPTI-NER, delivered the talk, which was attended by all the B.Tech 6th and 8th semesters students of the department. The primary objective of the programme was to make the students aware of electrical safety in both domestic and industrial applications. In this talk, Mr. Gantayat discussed the Indian Electricity Act-2003, the different types of protections needed for transmitting electrical power through the overhead transmission lines and the different kinds of domestic wirings and earthings being used for this. He mentioned about the safety measures and protections to be practiced by the personnel working in an electrical engineering firm. Further, he also discussed the different burn levels due to electricity and the vital role of administering Cardio Pulmonary Resuscitation (CPR).



### National Science Day 2019

The Department of Zoology in collaboration with Eco Club, Assam Don Bosco University, observed the National Science Day on the 28th February 2019 with a day-long programme.



The celebration began with the release of the Second Wall Magazine of the Department by the Vice Chancellor, Rev. Fr. (Dr.) Stephen Mavelly during the Morning Assembly. This year, the theme of the wall magazine is "Animal Architecture" which depicted the architectural world of Kingdom Animalia.

After the assembly, Dr. Hridip Kumar Sarma, Assistant Professor, Gauhati University, delivered a popular talk on "Science for Mankind: How do model organisms assist in solving research problems?" whose interesting presentation and discussion captured the attention of the audience. This was followed by the Equipment Exhibition cum Demonstration by the student volunteers of the Department where

laboratory and field equipment (Lux meter, Flow Meter, Clinometer, Stereozoom microscope, Snake tong, Leech guard, to name a few) used by Zoologists were displayed.

A Poster Presentation Competition was also held simultaneously in the lawns adjacent to the Department which witnessed enthusiastic participation of 19 teams comprising 78 students. The sub-themes selected for the Poster Presentation were selected with an aim to encourage participation from all Schools in the Campus and based on this year's National Science Day theme, "Science for the People and the People for Science". The Posters were adjudged by Dr. Hridip Kumar Sarma, Dr. Monmoyuri Baruah, and Dr. Probin Phanjom. Prizes were distributed to the three Best Presenters - Neha Paul, M.Sc.(II) Life Sciences; Manash Pratim Rajbongshi, M.Sc.(IV) Zoology; and Ilawanpynsuk Kharsohnoh M.Sc. (IV) Physics. Certificates of Participation were also distributed to all the participants in various events.

On this occasion, the Department of Life Sciences (Biochemistry, Microbiology, and Biotechnology) also organized a programme for the school children of St. Patrick's School on the theme of 'Popularizing Science - Igniting the Young Minds'. The programme started with a welcome address and it was followed by short presentations by the Ph.D. students on their research topics "Importance of medicinal plants, Nanotechnology in agriculture, Bioinformatics in research and Conservation of aromatic plants" and a demonstration by the M.Sc 4th Semester students based on their dissertation projects. The school students and teachers took great interest in the different research exhibits of M.Sc students and the ongoing research projects in the department.

## International Women's Day, 2019

International Women's Day celebration was organized by the Department of Social Work and Centre for Development Studies and Initiative at Assam Don Bosco University, Tape-sia Campus.

The programme, organized as thanksgiving and appreciation of local women who work in the University's garden, housekeeping, etc also included a skit on 'Cancer awareness- marking the role of alcohol in cancer' performed by volunteers from North Eastern Cancer Institute.

After felicitating 29 women who attended the programme with traditional gamucha, Fr. Stephen Mavelly, the Vice Chancellor expressed his sincere appreciation for their contribution saying, "The first thing any visitor of the campus notice is how beautiful, clean and well maintained the campus is and that is because of your hard work, love, and care. As the University grows and moves forward, we want to take you with us. We are here for you and to lend helping hands whenever you need. As we grow, you too will grow".



'Diya Diya'- a video on violence against women was shown to help them realize the importance of knowing their rights and also to have the strength to stand up to such abuse. The video also encouraged to save a girl child and portrayed girls excelling in various fields - such as social, cultural, economic and political. The programme concluded with a session "Women's Adda - Women's health and hygiene" facilitated by Ms. Bibharani Swargiary, Assistant Professor, Dept. of Social Work, who also showed the procedure of making sanitary cotton pads at home.

The Department of Social Work and CDSI are grateful to Barfu Nazary and Jiusa Narzary for contributing the gamucha from their piggybank and Ms. Hazel Wahlang for the refreshments.



## RESEARCH PULSE

Research being one of the most important activities at University ducation, Assam Don Bosco University is no exception in attaching utmost importance to this aspect in addition to the teaching – learning at post graduation level.

The research department guided by a Board of Research Studies and headed by a full time Research Director deals with advertisement, written test + interviews, admission, PhD Course Work, Research Proposal Presentation, registration, six monthly reporting, Pre-submission seminar , Thesis submission, examination, Viva Voce Examination and finally award of PhD degree to those who pass through all these steps systematically and successfully.

This quarter – January to March 2019 – witnessed a number of activities that will be presented hereunder in brief.

For the current session of PhD at ADBU, 150 aspirants were invited for written test and/or oral interview and suitable candidates were selected out of 200 aspirants who applied. It is important to mention that all those selected – numbering 68 – sought admission within a short period of two weeks.

These admitted research scholars were then invited to join the preliminary phase of the compulsory PhD course work 2019 that is to last for a period of one semester. Due to the current year's parliamentary elections we could not give lavish time to our research scholars to prepare themselves for the course work but it is heartening to mention that all of them joined the activity enthusiastically and are making full use of the course. The course is well designed to suit the needs of a modern day research scholar. It is a 12 credit course equally split into three papers:

1. Research Methodology with statistical techniques and computer applications – evaluated by assignments and written test,
2. Subject Specific Course – evaluated by assignments and written test and
3. Literature Review – evaluated by report evaluation and presentation.

The PhD Course Work 2019 is in progress and will conclude in September 2019.

In addition to this annual activity, the quarter witnessed research proposal presentations, pre-submission seminars and viva voce examinations of some of the research scholars:

**Research Proposal Presentations:** The following six research scholars presented their proposals and gone ahead for registration.

SB Seshadri (Management), Brajen Kumar Deka (Computer Science Engineering), Rosie Kalita (Social Work), Oshyajem Longkumer (Education), Kamalesh Kumar (Computer Science Engineering), Losii Athew Mathew Maheo (Education).

**PhD Pre-Submission Seminar:** The following Research Scholars successfully had their Pre-Submission Seminars and are preparing to submit their theses for examination.

1. Jayashree Katti – Department of Computer Science Engineering
2. Krishna Thakur – Department of Management
3. Hoineichin Haokip – Department of North East India Studies

**PhD Viva Voce Examination**

Four of our research scholars have successfully defended their theses and have been awarded PhD degree of Assam Don Bosco University:

1. Satyabrata Borgohain – Department of Management
2. Daisy PJ – Department of Education
3. Ganapati Das – Department of Computer Science Engineering
4. Silveira Cedric Thomas – Department of Management



## ADMISSIONS OPEN

**BTech:** Civil, Mechanical, Electrical, Electronics, Computer Science,

**BBA, BCA, BCom,**

**BA (Hons):** English, Education, Economics, Psychology, Mass Com

**BSc (Hons):** Botany, Physics, Chemistry, Maths, Zoology

**MTech:** Electrical, Electronics, Computer Science, **MCA, MBA, MSW, MCom**

**MSc:** Botany, Physics, Chemistry, Biotech, Microbiology, Biochem, Zoology, Psychology, Maths

**MA:** Education, English, Mass Com



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