

# SPARK



a newsletter for Don Bosco University family, alumni and friends

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## ‘Developmental concerns and initiatives

Rahul Gandhi in a colloquium with University students

### IN THIS ISSUE

Message from the Vice Chancellor 2

Cover Story - Rahul Gandhi at the University 3

International Conference on Education 5

National Conference on Engineering and Technology 8

MSW Study Tour and Rural Practicum 12

Research Pulse 13

Entrepreneurship Development Camp 16

‘Reconceptualizing higher education today’ -  
An International Conference - Feb 2014



EGTET 2014  
A National Conference on  
latest trends in  
engineering & technology



Entrepreneurship  
Development Camp  
Sparking creative  
ideas

## From the Desk of the Vice-Chancellor

I ran into them the other day - the YOLO people. Young, enthusiastic, with stars in their eyes... "You Only Live Once" they said....

"Live it up... Live everyday as if it were your last... Plunge into every unknown territory - it is the experience that counts... "You Only Live Once" they said...

"Challenge your fears... Don't buck anything that comes your way... Live life in the moment!... Move out of your comfort zone... "You Only Live Once" they said...

"Break a few rules, try something new, take risks, make spur-of-the-moment blunders... What does it matter?..." "You Only Live Once" they said...

"The night is short – all too soon the dawn will break!... Get high, the funkier the better... Stretch the party the whole night long!... "You Live Only Once" they said...

"It's a new day - make a splash, let your hair down, feel the wind in your face, wear what you like... Let go of doubt and self - judgment!... "You Only Live Once" they said...

"Stay focused... Chase after once-in-a-lifetime experiences... Tweet for all you are worth... Tell the world you've arrived!..." "You Only Live Once" they said...

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Being in a state of YOLO is considered trendy today... The acronym has entered deep into the psyche and everyday rhetoric of teens, young adults and social media junkies... In 2012, it even vied for a place as the 'Word of the Year' for the Oxford American Dictionary! Twitter statistics point to its use in the millions!

Many New Zealanders, at a recent census, sought to make YOLO into a new religion listing it as their philosophy of life under the section on religious beliefs!

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Given all the hype, one would think that YOLO philosophy is something new. Not really...

Horace, the Roman poet, was perhaps the first to introduce the concept in his famous verse "carpe diem, quam minimum credulapostero..." translated from Latin as "Seize the day, put but little trust in tomorrow (the future)".

Given his Epicurean leanings, the phrase has been given a nuance and interpretation that has persisted down the ages, more so in contemporary pop culture. It is the favou-



rite catch phrase of the Epicureans— seize every moment, live riotously today, there is no tomorrow!

Horace, perhaps, was just sounding a caution: do all you can today and do not leave your fate to the uncertain future; rather, get intensely involved now in what you do, and thus ensure a better future. Things do not fall into place tomorrow by chance – your assiduous engagement with every moment of the day, day after day, is the best guarantor of a desirable future! Further a healthy consciousness of your fragility and mortality is the key that undergirds the importance of the moment.

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When hunting for an appropriate phrase to epitomize the spirit of the University, and to emblazon it on our coat-of-arms, the image that kept surfacing in my mind was that of a university community that is alive, alert, active, fully engaged in the moment, living life to the full, fashioning a life for themselves, becoming the architects of their own future and reaching out to the community around them.

Horace's call to Gilgamesh to let go of his mourning and to embrace life (Odes 1.11) - Carpe Diem –propped up almost immediately as it encapsulates just such a spirit. Combining that with the biblical emphasis on seeking 'life in its fullness' provided just the right flavour of the spirit that we wanted to permeate the university: 'carpe diem'... so that you may have 'life in its fullness'... THAT is exactly what is etched on the emblem / coat-of-arms of our University!

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... and so, YOLO – that's true... Do 'grab the day'... But plunge into every moment with verve and enthusiasm so that you may 'have life in its fullness'!

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



## Agenda for Change: Education and Nation Building

An interactive session with Rahul Gandhi

Rahul Gandhi arrived in Assam Don Bosco University on 26 February, 2014 for an interactive session with the students of the northeast on a two-day visit to Assam. While students from the University, Gauhati University, Cotton College State University and B. Baruah College interacted with Rahul Gandhi in the University atrium, those from IIM Shillong, NIT Silchar, NIT Agartala and Rajiv Gandhi National Institute of Youth Development, Sriperumbudur, did so through video conferencing during the same session. Chief Minister Tarun Gogoi, PCC President Bhubaneswar Kalita and AICC General Secretary for Assam CP Joshi were among those who accompanied Rahul.

The interactive session revolved around the theme, “Agenda for Change: Education and Nation Building”, moderated by the MLA from Silchar, Sushmita Dev. Words of welcome and a brief introduction by the Chief Minister Tarun Gogoi gave impetus to the discussion that followed. The informal atmosphere encouraged the students to be spontaneous and grab opportunities to air questions on a variety of

concerns that worry the society today. Speaking about the continuing violence in Manipur, Rahul pointed to Mahatma Gandhi as his inspiration and emphasized on solving problems through dialogue, understanding and empathy. He spoke about the need for improving connectivity, boosting manufacturing and encouraging entrepreneurship as some of the fundamentals for developing Northeast India. He also spoke of cultural diversity, the need for respecting all cultures and empowering the people.

One of the points he underlined was that of ensuring women’s safety. In this regard he said that respecting women’s status is more important for the country than becoming a super power.

According to him, the most pressing needs of the North-east were connectivity and accessibility (transport, telecommunications, business hubs) and the creation of an atmosphere where the people of Northeast felt at home in the rest of India.



# A shared Vision, a cohesive Team and an engaging Work Culture

## Staff Enrichment Programme



Organizations quite often struggle to get committed employees on board, who identify with the vision and culture proper to that of organization. Employees, too, at times, fail to understand the broad vision of the organization they are associated with. As a result, their personal vision is never aligned with that of the organization.

The University has, from its very beginning, emphasized the internalization of its vision by its employees. Therefore, the theme of this year's 2-day Staff Development Programme revolved around "A Shared Vision, a Cohesive Team, and an Engaging Work Culture". The programme held on 24 and 25 January 2014 was directed by Fr. (Dr.) Joe Arimpoor. Fr. Joe is a known face in the ADBU fraternity, and is highly regarded as a person who brings wealth of experience and expertise in igniting the minds of people, evoking passion and drive to bring about a change from within.

The first day was dedicated to enlightening the staff with the importance of self-awareness and comprehending one's

core meaning, which has to be harmonized with the organization's shared vision to bring out positivity at work. The second half of the day was a group discussion session on predicting ways of expanding, deepening and enhancing one's core competencies.

The second day resumed with deeper insights on understanding the shared vision of the University and how members of the University can contribute to making it known globally, at the same time, gaining personal mastery for themselves. Fr. Joe also emphasized on synergizing capacities by building a cohesive team culture at the work place. The staff members were also introduced to modalities and advantages of collaboration and cooperation in group problem solving decisions. The second half of the day concentrated on imbibing the culture and values of ADBU at work, which can foster a positive culture that everyone would like to be a part of.

*Rashmita Barua, Asst. Prof., ADBU*

## Student Volunteer Programme with the University College Dublin

In view of the inter-university student exchange programme, a team from the University College, Dublin, visited ADBU in the third week of February this year to plan out and finalize a joint programme in the month of June, 2014.

The programme visualizes the promotion of understanding the developmental concerns of marginalized and underprivileged communities and includes academic engagements as well as field applications, focusing on promoting the spirit of appreciation for different cultures. It aims at helping the participants to share learning and experience in the areas of participatory community development and social outreach.

### ADMISSIONS 2014



We are pleased to announce that admissions are open.

The University invites applications from prospective students to its study programmes.

For details log on to: [www.dbu.edu.in](http://www.dbu.edu.in)





## Teaching to Learning International Conference on Education



The University in collaboration with the Department of Education, Gauhati University, hosted an International Conference on Education on 24-26 February, 2014 at its Azara Campus. Over 55 scholars and academicians from 26 university colleges participated in the conference.



The Vice Chancellor of Gauhati University, Dr. Mridul Hazarika, in his address, briefed the assembly about his experience in the education field and pointed out the continuously changing scenario of the education system. He spoke about the need to keep pace with the demands made on it and invited everyone to embrace the new paradigm of education that calls for fresh thinking and practices.



Challenging the participants about the demands of education today, Fr. (Dr.) Stephen Mavelly, the ADBU Vice Chancellor said, "The creation of an enabling environment is one of most pressing demands made on educational institutions today, an environment that would be conducive

for the formation of dependable human persons - thoughtful citizens, competent parents, faithful friends, capable workers, generous neighbors and lifelong learners." He laid emphasis on creating an ideal platform at the conference to provoke thought and explore fresh ideas, in order to make it a catalyst in the search for new approaches and new tools to meet the urgent and emerging challenges.

Welcoming the participants at the inaugural session, Dr. Paul Pudussery, the Convener of the Conference, commented on the present scenario of education and the need for creating a campus climate that fosters student engagement leading to critical thinking, creativity, innovation and social responsibility. He observed the changed faculty role from being a transmitter of knowledge to being a promoter of learning and stated, "This conference is an attempt to grapple with the paradigm shift that is taking place in the field of education and to find how this shift needs to find expression, particularly in the northeast."

The conference had a three-fold focus: (1) to understand the present scenario – a fundamental reconceptualization of what curriculum is, how it functions, and how it might function in emancipatory ways, (2) to reconceptualize higher education within the emerging environment of ICT, and, (3) to understand the developing trends in education and their implications in classroom teaching and learning.

44 scholarly papers were presented under nine thrust areas: Teaching to Learning; ICT as a Subject and as a Tool; ICT in Pedagogy; Emerging Environment of ICT and its Impact; Education and Psychology; Education & Northeast India; Teacher Education and Northeast India; Education for Twenty-first Century, and Theories of Learning.

The sessions were designed in such a way as to provide the participants time for ample discussions on some of the key concepts of education today.

## Project Exhibition cum Competition at School of Technology

An engineering project exhibition cum competition was held at the University's School of Technology at Azara campus on 29 January, 2014. It was a coordinated effort of the 6<sup>th</sup> Semester B. Tech students to display the enormous possibilities that can be explored by the engineers.

Automatic Water Level Indicator, Human Computer Interaction, Low Power FM Transmitter, Remote Controlled Home Appliance and 3D Led Matrix Display were among the more prominent items they exhibited.

MBA Students from the University's School of Commerce and Management, Kharguli, visited the exhibition to work on



business plans for the projects, and to evolve strategies and mechanize to promote some of the potential projects as commercial ventures. Students from different schools - St. Claret School, Azara, Kendriya Vidyalaya, Borjhar and Don Bosco School, Pan Bazar, visited the exhibition to have a flavor of the engineering skills demonstrated through the projects.

**Rupam Kumar Sharma, Asst. Prof., DBCET**

## Women at Workplace: Current Trends and Concerns - a Seminar

The University's School of Commerce and Management organized a Seminar on "Women at Workplace: Current Trends and Concerns" on 1 March 2014 at its Kharguli Campus with an effort to sensitize and increase the awareness level in society in general and working women in particular about the role of women in society. Speaking at the inaugural session of the seminar, Padmashree Ms. Patricia Mukhim, eminent journalist and Editor of Shillong Times said that gender equality needs to be achieved in the work distribution, not only in the professional world but also in the personal workspace. She further emphasized that there are certain inhibitions regarding mentoring female subordinates, especially at the higher echelons of an organization. Such things need to be addressed and legislations / policies should focus on such dimensions for effective gender equality.

In his address, Mr. B. Paul Muktieh, Chairman and Managing Director of NEDFi, emphasized the fact that the increasing participation of women in our workplaces cannot be ignored and cited his own personal experiences in the banking sector since 1980.

The seminar was attended by representatives of civil society, private corporate sector, Government officials, educators and students. Notable among them were Dr. Subrata Sarmah Bhattacharya, Vice Principal, Cotton College; Ms. Tanushree Hazarika, Managing Director, Eclectic Group; Dr. Srutimala Duara, Associate Professor, Handique Girls College; Ms. Gitanjali Das Phukan, Head HR (NE), Aviva Life;



Ms. Samhita Barooah, Asstt. Professor, TISS and Ms. Jennifer Liang, ANT.

Even though women account for 48.5 percent of the total population of the country as per the 2011 census, the labour force participation rate of women across all age-groups was 20.8 percent in the rural sector and 12.8 percent in the urban sector compared with 54.8 percent and 55.6 percent for men in the rural and urban sectors respectively in 2009-10.

India ranked near the bottom among the 134 countries, with a ranking of 113, on the 2011 Global Gender Gap Index. Although attitude towards the women's role as home makers is changing to being career people, only some women have made their approach to gradually climb up the management and leadership ladders. Women in India are just 3% in the legislative, management, and senior official positions. According to Gender Diversity Benchmark, 2011, India has the lowest national female labour force and the worst leaking pipeline for junior to middle level position women.

**Mr. Bikash Gogoi, Asst. Prof., DBIM**

## Student Orientation Programmes



A series of student orientation and development programmes was held at various intervals in January this year, organized by the campus ministry department of the University. The programme concentrated on enriching and equipping students with knowledge on setting goals for life, team building and seeking counsel.

Fr. Francis Fernandez, Campus Minister, introduced the various aspects of building a team and focused on the importance of working together as a team. The group was privileged to gain insights from a professional psychological counsellor and therapist, Mrs. Leeta Hazarika, who explained to the participants the advantages of counseling and led them to understand each other through interesting group activities.



The faculty from the University's Department of Psychology, Miss Neshmita and Miss Neelam further enabled the group to appreciate the need for setting goals in life. Their talk on 'setting goals for life' took all the students to a world of imagination.

Through these programmes the students emerged more knowledgeable about themselves, appreciating their own inner qualities and potential. They were motivated to become integrated persons, capable of contributing to the growth of the society.

**James E Samuel, B.Tech, DBCET**

## Sunita Khaund Bhuyan performs at DBCET



A soulful recital by internationally acclaimed Assamese violinist Sunita Bhuyan at Don Bosco College of Engineering and Technology left students and staff spellbound on 22 January. Sunita Bhuyan, the recipient of Indira Gandhi Priyadarshini award for Music, was accompanied by her mother and trainer, veteran violinist Minoti Khaund. Sunita Bhuyan, along with her two accompanying musicians, imparted lessons in creativity and leadership to the students through music.

The two hour presentation began with an invocation song. Sunita Bhuyan explained the importance of the two most essential elements of music – sur (melody) and tal

(rhythm). The unique Jugalbandi of the violin and the tabla was something the audience had neither heard of nor witnessed before.

Bhuyan used music as a tool for life enrichment and also touched upon the healing and therapeutic properties of music and its capacities to fight stress.

**Nabamita Das, Asst Prof. DBCET**

## Awarded PhD

Mrs. Kanan Kumari Ojah, Asst. Professor at the University's School of Technology, has been awarded PhD by the University of Tezpur for her thesis "Contributions to Partition Identities and Congruencies by using Ramanujan's Theta Functions, Modular Equations and Continued Fractions." She carried out her research under the supervision of Prof. Nayandeep Deka Baruah, Department of Mathematical Sciences, Tezpur University.





## Emerging Global Trends in Engineering and Technology National Conference at DBCET

The National Conference on 'Emerging Global Trends in Engineering and Technology' (EGTET) held on 7 and 8 March, marked another milestone in the history of the University's School of Technology in bringing together eminent personalities, engineers, professionals, researchers and academicians from across the nation. EGTET 2014 was one of its first kind wherein all engineering domains were included with an aim to bring together those interested in the state of the art in various engineering applications for exchanging knowledge that encompasses a broad range of disciplines. The conference brought new prospects for collaboration across disciplines and ideas facilitating novel breakthroughs, providing a new forum for dissemination of knowledge on both theoretical and applied research in Engineering and Technology.

Prof. Narayan Sharma, Water Resources Development and Management Department, IIT Roorkee, delivered the keynote address. He dwelt upon various economic deficiencies prevailing in the North Eastern region and said, "In spite of the advanced technology and resources existing in the region, development relating to irrigation, agriculture and employment is still lagging in Assam and other North-Eastern states compared to the overall development of the country." Explaining some of the new ideas and technology that could be adopted to enhance the development of the region, he emphasized



the need to focus on automated agriculture. He also spoke about climate change and its consequences, causes of flood and various theoretical aspects related to its control. He called on the members to focus on the urgent need to accelerate the pace of the all-round development of the region.

Prof. Nirmal Kumar Choudhury, Ex-Vice Chancellor, Gauhati University, the guest of honor, addressed the gathering and touched upon some of the concerns of the present day. He said, "Knowledge is created and it has to be used for the welfare of all living beings and the environment so that everyone can live peacefully." He further added, "Knowledge alone is not sufficient; but we also need wisdom." While speaking on environment protection he appealed to the participants to think and discuss on global standard technologies and the ways to apply them locally.

The Chief Guest, Mr. Kumar Sanjay Krishna, IAS, Principal Secretary, Planning and Development, Govt. of Assam, launched the ADBU Journal of Engineering Technology (AJET). In his speech he focused on the evolution of technology over the past few decades and stressed its importance for the industries involved in building and designing of such products. He cited examples of companies like Sony, Motorola (builder of first mobile phone) and Kodak who were pioneers in their own fields, bringing the

results of innovation to the masses.

Formally inaugurating the conference, Fr. (Dr.) Stephen Mavely, the Vice Chancellor, briefed the assembly about the vision of the university and its plans to be involved deeply into important aspects of society: culture and technology.

Dr. Sunandan Baruah, Convener, EGTET 2014, gave a brief overview of the conference and acknowledged the contribution of the participants and the organizers.

Prof. Gautam Baruah, Mentor Director, IIIT Guwahati, the chief guest at the valedictory session, spoke about the urgent need for interdisciplinary research while keeping fun-

damentals intact. Dr. NC Talukdar, Director IASST Guwahati, and Mr. Prabir Das, Director, STPI Guwahati, were the other speakers at the session.

The two-day conference had a total of 15 technical sessions for oral presentations and one session for poster presentation. The sessions covered a huge range of topics ranging from Signal Processing, Electrical, Electronics, Communication, Mechanical, Civil, Nanotechnology, Computing Tools, Networking and Image Processing.

**Subra Mukherjee and Parismita Kashyap**  
Asst. Professors, DBCET

## D'Verve 2014 The College Festival



D' Verve, the most awaited cultural and sports fiesta of Don Bosco College of Engineering and Technology, was organized from 11 to 15 March. This week-long event is held every year with great zeal and enthusiasm. This year, the festival kick started with a first time peace rally with the theme "United Northeast Peace Rally" along the National Highway in front of the College.

The chief guest for the event was Mr. Mahadev Deka, Mr. Universe 2009, who flagged off the march along with Fr. (Dr.) Stephen Mavely, the Vice-Chancellor and Dr. Manoranjan Kalita, the Principal, DBCET.

After a 40-minute peace rally along the National Highway 37, the marchers gathered together for the official opening of the fiesta, christened "D'VERVE 2014", by welcoming the games flame, hoisting the flag and taking the pledge.

Mahadev Deka lit the games torch and addressed the students encouraging them to take active part in the opportunities provided to excel in all spheres. After hoisting the D'VERVE flag, the Vice Chancellor, Dr. Stephen Mavely spoke on the theme "Go, Glow and Grow" which has been celebrated each year since the start of the university five years ago. He emphasized the point that as the theme itself

says "Go, Glow and Grow" we, the students have pioneered to bring about a change in the usual tradition of the Inauguration Ceremony by introducing the Peace rally for the first time, indicative of our gradual growth in the University.

The Campus Minister, Fr. (Dr.) Francis Fernandez administered the pledge to the course representatives and Presidents of the Extra-curricular clubs on behalf of all the students. Declaring D'Verve 2014 open, the Principal of DBCET, Dr. Manoranjan Kalita, exhorted the students to take active part in all the events spread out all through the week.

The inaugural function ended with a body building show and interaction as regards health and nutrition with Mr. Universe -Mahadev Deka.

D'Verve 2014 evinced keen participation in all the events, be it literary, singing, dance, drama, art and craft or even sports. The enthusiasm as well as the participation shown by the students and the faculty members were overwhelming. The week-long event came to a close on 15 March with a cultural show along with a colorful Fashion Show entitled 'FASHION DURING 50's and 90's'.

**Shaheen Wahab, B.Tech, DBCET**

## An update from the Training and Placement Cell



"General Electric, a major multi-national corporation, visited the Azara campus of ADBU for recruitment on the 11 March, 2014. They had conducted the online test earlier and this visit was focused on multiple rounds of personal interviews - both technical and growth value assessments. The team of panelists was led by Mr. Susil Subudhi, General Manager, GE Health Care(East), and the other team members included Mr. Sihbananda Singh, and Mr. Dhananjoy Baruah. The interview was a day long process and the results are still awaited. There are a few other organizations who have already given the confirmed dates for conducting campus interview and the preparations are in line.

With respect to trainings, two online aptitude tests have already been conducted through the School of Technology's in-house software. A third test has been scheduled and announced which covers all branches across all semesters. In addition to this, group discussion and C V preparation trainings are being scheduled for all the semesters.

**Mr.Shahnowaz Hussain, TPO, DBCET**

## A Step for Life Red Ribbon Club

The Red Ribbon Club of DBCET participated in the Rally, 'A Step For Life' and the mega blood donation camp organized by Assam State Aids Control Society and the Red Ribbon Clubs of educational Institutions in and around Guwahati on 5 February 2014. This was part of a series of programmes to create awareness about HIV/AIDS, organized from 12 January, on the birthday of Vivekananda, which is celebrated as National Youth Day.

The mass rally took off from Assam Engineering Institute, Chandmari, Guwahati, proceeded through the main streets and ended at Nehru Stadium where the significant blood donation camp was held. 19 students from the School of Technology, ADBU, along with the program officer, participated in the programme. Nine of them, including the program officer, donated blood to support the cause. The event



was graced by the presence of a number of government officials, dignitaries and celebrities from the State.

**P. Joseph, Asst. Professor, DBCET**

## Workshop on Open - Source Software

A workshop on Open-Source was organized by the University in collaboration with ICSSR-NERC on 6 - 8 February 2014 at its Azara campus. Over 35 scholars from ADBU and other Institutions participated in the workshop. It comprised of lectures, presentations and hands on sessions on Word Processing, Spread Sheet, Presentation Skills, Preparation of Technical Documents, Data Summarization, Query and Analysis, Statistical Analysis, Online Survey, and Audio and Video Editing for Social Science Research.



## Research Collaboration with AIT Bangkok ... Scholars Speak

The first batch of M. Tech students - Mr. Hironmay Deb, Mr. Sunil Deka, Mrs. Sandhyabanti Dutta Borah and Mr. Rajkumar Joydev Borah from the Department of Electronics and Communication Engineering successfully completed their three-month long research study at Asian Institute of Technology, Bangkok, which was part of the student exchange programme signed by the two Universities in June 2013.

Mrs. Sandhyabanti acknowledged the wonderful experience she had at AIT and exclaims, "I have gained marvelous and memorable experiences not only academically but also socially. In AIT, the 'nanolab' allow people from different backgrounds to come together, share ideas and to work as a team. The wonderful campus, multi-cultural environment and a close knit and supportive research group made it a memorable experience. It was a rare chance to meet first-class professors who had experiences not only in academia but also in state-of-the-art industries." She further speaks of her experience, "The work culture in AIT was very inspiring. Students used to work in laboratories 24\*7 at their own pace. There is no hard and fast time table about reporting to the lab. In my case, I had the experience of working in the lab till 2 o'clock at night. The environment is so friendly and homely that there is no fear of working even late night."

"My three-month research experience at Bangkok University and Center of Excellence for Nanotechnology, Asian Institute of Technology, was one of the best experiences I ever had in life," said Hironmay. Overwhelmed by the enriching life he had at AIT, he carried on, "I got an opportunity to work as a research assistant with Dr. Sakoolkan Boonruang from Thailand National Electronics and Computer technology Center (NECTEC) and Dr. Waleed Soliman Mohammed

from Bangkok University Center of Research in Optoelectronics, Communication and Control Systems (BU-CROCCS) for designing biological sensor for detection of food contamination using Guided Mode Resonance principle. My research work mainly involved sensor designing requiring nanomaterials. The facilities and resources at the center are immense and easily available which creates a positive mood for carrying out the work." Commenting about the work culture he said, "During my stay I got a chance to work with students and research associates from China, Malaysia, Belgium, Thailand, Pakistan and Bangladesh. Being exposed to an international work culture not only helped me gain technical knowledge but also taught me the attitude and personnel skills to communicate with people in any situation that we might encounter."

Sunil, who spent three months as a graduate research assistant at the BU-CROCCS at Bangkok University, commented, "The group of researchers I worked with explored the effect of regulating the light intensity in the visible light communication. I have never really had an experience that focused on the research process. This research undertaken with Dr. Poompat Saengudomlert has benefited me much and I feel fortunate to have undertaken a study that is related to daily life. It has not been easy; but I praise the work of the guide and his methods for organizing the course. I was constantly guided by an instructor and peer assistant throughout the research process."

Rajkumar, in his turn, exclaimed, "I am very proud to be a student of Assam Don Bosco University. It was indeed a great opportunity for me to get the chance to do my M.Tech project at Bangkok University under the guidance of Dr. Karrel Sterckx and Dr. Waleed S. Mohammed (BU-CROCCS). During my stay at Bangkok University, I got the chance to interact with many students who came from various parts of the world to study there. In such a short span of time, I learned many new techniques related to my project and also made many friends."



## Exposure cum Study Tour for MSW Students



The final semester MSW students of ADBU undertook their study tour (December 4 – 21, 2013) in three teams. While two teams chose Mumbai- Goa as their destination, one group headed towards Katmandu. Each group had its own unique experiences and learning as each visited civil society organizations and voluntary organizations specific to their own specializations of community development, medical and psychiatry, and family and child welfare. Each group was accompanied and assisted by a faculty member right from the beginning till the successful conclusion of the study tour.

The exposure made them understand that

- systematic documentation and scientific research are essential factors in understanding issues and formulating suitable intervention plans.
- focusing on a single (social) problem will not yield sustainable solutions as they are interconnected and are

causally linked.

- group reflections play an important role in critically analyzing and understanding problems at all levels.
- the different approaches like the Welfare approach, Service approach, Right based approach and Developmental approach are applied for addressing different issues concerning society and its ills.
- India is a complex society with varieties found in every sphere and its unity lies in accepting this complexity than in merely analyzing the causes.

Above all, the study tour has enabled the students to expand their minds and to explore into more innovative ideas to serve the community better. The students have begun to incorporate their learning into their practical field work.

**Nadeen Pakyntein, Department of Social Work, ADBU**

## MSW Rural Practicum at PAJRA, Dekhijuli

The first semester MSW students organized their 10-day Rural Practicum from 9 December, at Bhutiali, Dekhijuli, in Sonitpur District, Assam, 148 kms from the University campus, at the PAJHRA Centre. PAJRA is an NGO that works for the Adivasi community across Assam. The objective of the practicum was to enable the trainees understand and gain exposure to rural life and also to help them adjust with the rural community.

The trainees conducted health related surveys in different villages and Tea Estates (Narayanpur, Sapoi, Bhutiali, Hol-longakatta and Tinkhuria), and found that the major health problems included tuberculosis, malaria, cancer and jaundice. In some of the hospitals they found that there are no permanent doctors, that these hospitals are managed by a pharmacist and a few nurses, and there is a very inadequate supply of medicine.

The students engaged themselves in the evening by organizing street plays in the tea estates to sensitize the people on issues such as child labour, importance of education and human rights, the dangers of alcoholism, human trafficking, domestic violence and health related problems.



## RESEARCH PULSE

The University is involved in numerous international and national research activities that enable its faculty members and researchers to be experts in their selected fields there by demonstrating their commitment to academic excellence and serving others. Close collaborations between the University and other affiliated institutes creates access to excellent complementary facilities for research and research training in highly competitive fields.



**Ph.DSynopsis Presentation and Registration:** The following research scholars have submitted their synopses on 3 February 2014 and their registration is in progress.

1. S. Xavier (Social Work)
2. Joby Mani (Social Work)
3. PurchilaJamir (Comparative Religion)
4. Neikehienuo Mepfhfuo (Language Studies)
5. E. Manoj (North East India Studies)
6. Gypsy Nandi (Computer Science)
7. Rabindra Mahato (Physics)

**PhD interview/entrance test for the Batch of 2014:** As many as 192 candidates applied for the PhD interview/test in various departments. 62 candidates were shortlisted for admission. The course work for the batch will commence on 26 May 2014.



**ADBU Research Lectures:** For the past one year, the research lecture series has been conducted successfully and has brought some of the most interesting minds in the field of cognitive science and humanities as it pertains to thought, learning and consciousness. It has expanded our thinking, provided fresh insights, and opened our eyes to new areas. Clearly, lectures can be an efficient way of transmitting large amounts of information in a relatively small amount of time. This lecture series is intended to advance the discussion and rigorous study of the deep questions which engage research investigations. So far, with the advent of the New Year 2014, three lectures have been delivered.

- Prof. Deepankar Medhi of the University of Missouri, Kansas City, USA spoke on, 'Evolution of the internet and the future'.
- Dr. Uzzal Sarma of ADBU presented a lecture on the topic, 'Pitch estimation of Boro mono-syllabic words'.
- Asst. Prof. Bijou Moni Das delivered a lecture on, 'Women empowerment through Self-Help Groups'.

**Pre-Submission Seminar:** The pre-submission seminar for research scholars registered in 2012 for PhD degree has been tentatively fixed for the month of April 2014.

**Tezpur University Team Visit:** A high level team from Tezpur University, Napaam, led by the Pro-Vice Chancellor, Prof. Dr. A. J. Choudhury visited the University on 10th March 2014 with a view to discussing collaboration in selected areas like Engineering and Chemical Science. Both Professor Dr. A. J. Choudhury and Rev. Fr. (Dr.) Stephen Mavelly, VC, ADBU, expressed their hope for a fruitful collaboration that will benefit the two Universities in many ways. A high level team of the ADBU led by Rev. Fr. (Dr.) Stephen Mavelly will be visiting Tezpur University within a fortnight for finalizing the decisions and the signing of MoU.

**Research Paper Publications/Conferences of the Faculty members/students:**

- **S. Bordoloi, P. Gogoi and S. Laskar**, "A Capacitor Based Instrumentation System for Determination of Degradation of Used Lubricant Oil", National Conference on Emerging Global Trends in Engineering and Technology, 2014, Don Bosco College of Engineering and Technology, Guwahati, Assam, March 7-8, 2014.
- **J. K. Barman, P. Konwar and G. Das**, "Design of a PD like Fuzzy Logic Controller for Precise Positioning of a Stepper Motor", National Conference on Emerging Global Trends in Engineering and Technology, 2014.
- **J. Ahmed and S. Chanana**, "Trading Opportunities for Wind Generators in Indian Electricity Market", National Conference on Emerging Global Trends in Engineering and Technology, 2014.
- **S. Deka, P. Saengudomlert and S. Baruah**, "Dimming Control of OFDM-based Visible Light Communications", National Conference on Emerging Global Trends in Engi-

- neering and Technology, 2014.
- **B. Goswami**, "A case study on the safety hazards of Mobile Towers at Guwahati", National Seminar on Cell Phone/Tower Radiation Hazards and Solutions, 2014.
  - **R. Bezbaruah, S. Dutta, L. Kato, B. Goswami, P. Kalita and M. Kalita**, "A novel technique of soil moisture retrieval from brightness temperature using passive microwave remote sensing", National Conference on Emerging Global Trends in Engineering and Technology, 2014.
  - **A. Gogoi, P. P. Saikia, I. Nyodu, B. Goswami, L. Baruah and M. Kalita**, "Flood detection in Tropical regions using Passive Microwave Remote Sensing", National Conference on Emerging Global Trends in Engineering and Technology, 2014.
  - **H. Deb, J. Dutta, W. Soliman and S. Baruah**, "Fabrication of a high sensitivity SU-8 Photoresist Guided Mode Resonance Structure", National Conference on Emerging Global Trends in Engineering and Technology, 2014.
  - **A. Fazal, P. Talukdar, S. Chakravarty and C. K. Deka**, "Energy Audit and Rescheduling", National Conference on Emerging Global Trends in Engineering and Technology, 2014.
  - **J. Choudhury, P. Chakravarty, R. Kotoky and S. Dey**, "Compensation of Voltage Sag and Swell by Distribution Static Synchronous Compensator in Electrical Distribution System", National Conference on Emerging Global Trends in Engineering and Technology, 2014.
  - **B. Debbarma, P. Kaushik, M. Handique, A. Gogoi and P. Konwar**, "Diagnosis of Heart Ailment using Heart Sound Segmentation with the Help of Phonocardiogram", National Conference on Emerging Global Trends in Engineering and Technology, 2014.
  - **P. Konwar and H. Bordoloi**, "A system Design Approach to Control a Wheelchair Using EOG Signal", National Conference on Emerging Global Trends in Engineering and Technology, 2014.
  - **G. Nandi**, "A Survey on Using Data Mining Techniques for Online Social Network Analysis", IJCSI International Journal of Computer Science Issues, ISSN (Print): 1694-0814 | ISSN (Online): 1694-0784, Vol. 10, Issue 6, No 2, page 162-167, November 2013.
  - **U. Sharma**, "Analytical Study of Bodo Vowels – A Core Language of NE India Using Formant Frequency", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering ISSN: 2320-3765, Vol. 3, Issue 12, December, 2013.
  - **C. J. Kumar and S. K. Kalita**, "Recognition of Handwritten Numerals of Manipuri Script", International Journal of Computer Applications (IJCA), ISSN 0975-8887, Volume 84, Issue. 17, PP. 01-05, December 2013.
  - **A. Sarmah and C. J. Kumar**, "Iris Verification Using Legendre Moments and KNN Classifier" International Journal of Engineering Science Invention, ISSN: 2319 – 6734, Volume 2, Issue 8, PP.52-59, August 2013.
  - **C. J. Kumar and S. K. Kalita**, "Degraded Text Recognition in Indian Regional Scripts: A Survey of Feature Extraction Techniques" International Conference on Green Energy and Smart Materials, Gauhati university, ISBN: 978-81-921779-0-8, January 2014.
  - **B. Sharma, S. M. Hazarika and N. Sarma**, "NAODV-Distributed Packet Dropping Attack Detection in MANETs", International Journal of Computer Applications 2013, Volume 83 - Number 11 December 2013.
  - **E. Barlaskar and Y. J. Singh**, "Efficient Management of Virtual Machines with Intelligent Agent in Data Center" IEEE's National Conference on Research Trends in Computer Science and Application, West Bengal, ISSN: 978-93-82338-95-6, 8th February 2014.
  - **S. Borah, M. Medhi and V. Prasad**, "ANN Based Assamese Handwritten Character Recognition using Character Geometry for Feature Extraction" IEEE's National Conference on Research Trends in Computer Science and Application, Siliguri, West Bengal, ISSN: 978-93-82338-95-6, 8th February 2014.
  - **K. Sharma, R. K. Sharma and R. Das**, "A Survey of black hole detection in MANET", International Conference on Issues & Challenges in Intelligent Computing Techniques(ICICT)(IEEE), Feb 7-8 2014.
  - **H. Kalita, A. Mohammad, D. Kalita and R. K. Sharma**, "Android Based GSM Home Security System" International Conference on Issues & Challenges in Intelligent Computing Techniques(ICICT) (IEEE), Feb 7-8 2014.
  - **B. Devi and Y. J. Singh**, "Object detection using KPCA" (Poster-got 2nd Price) at National Conference on Emerging Global Trends in Engineering and Technology, Guwahati, India, (7-8, March 2014).
  - **L. K. Devi and Y. J. Singh**, "Design of a NoDB system", National Conference on Emerging Global Trends in Engineering and Technology, Guwahati, India, (7-8, March 2014).
  - **E. Barlaskar and Y. J. Singh**, "Energy optimization methods for Virtual Machine Placement in Cloud Data Center", National Conference on Emerging Global Trends in Engineering and Technology, India, (7-8, March 2014).
  - **Y. J. Singh and L. K. Devi**, "Study on potential capabilities of a noDB system" International Conference on Natural Language Processing And Cognitive Computing (ICONACC) 2014, Manipur, (10-12, March 2014).
  - **P. Bora and A. Bhowmick**, "An E-mail Header Content Aided Efficient Bayesian Spam Filter" National Conference on Emerging Global Trends in Engineering and Technology, Guwahati, India. (7-8, March 2014).
  - **C. J. Kumar, A. Sarma and A. Dey**, "Analysis and Modelling of an effective Anomaly Detection Techniques for Detecting Data Exfiltration of Network" National Conference on Emerging Global Trends in Engineering and Technology, Guwahati, India. (7-8, March 2014).
  - **M. Hazarika**, "A Review of Chaos Based Image Encryption Techniques" International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181, Vol. 3, Issue 2, 4th March 2014.
  - **U. Sharma**, "Analytical Study of CV Type Bodo Words using Formant Frequency Measure", National Conference on Emerging Global Trends in Engineering and Technology, Guwahati, India. (7-8, March 2014).
  - **K. Kalita and U. Sharma**, "Analysis of Bodo Vowel Characteristics Using Spectrogram Study" National Conference on Emerging Global Trends in Engineering and Technology, Guwahati, India. (7-8, March 2014).
  - **U. Sharma**, "Characterization of Bodo Language, A Sched-

- uled Language of India- with Special Reference to Consonant-Vowel Type of Words" International Conference on Strategy, Innovation & Technology (ICSIT 2014).
- **K. Kalita, U. Sharma**, "Estimation of Fundamental Frequency of Six BODO Vowels for Gender Identification" International Conference on Strategy, Innovation & Technology (ICSIT 2014), 12th - 13th March, 2014.
  - **A. Duarah, B. Kashyap and V. Prasad**, "A proposal and finding for a Short-Hand Text Editor" (poster presentation), National Conference on Emerging Global Trends in Engineering and Technology, Guwahati, India, 7th and 8th March 2014.
  - **M. Das and V. Prasad**, "Analysis of an Image Spam in Email Based on Content Analysis", International Conference on Natural Language Processing and Cognitive Computing, 10th to 12th March 2014
  - **S. K. Chettri and B. Borah**, "Privacy Preservation of Time Series Data Using Discrete Wavelet Transforms" International Conference on Advanced Computing, Networking, and Informatics (will be Published in Smart Innovation, Systems and Technologies Springer Verlag, ISSN: 2190-3018 Scopus, Springerlink (24th to 26th June 2014).
  - **R. D. Sabarni Das, S. Dhar, S. Dutta and S. Mukherjee**, "A comparative study of Biometric Authentication based on Handwritten Signatures", published in International Journal of Research in Engineering and Technology, Volume: 02 Issue: 12, Dec-2013, pp:28-35.
  - **K. Chakraborty, S. Mukherjee, D. Das, J. Basumatary and J. C. Kalita**, "Recent Developments in Paper Currency Recognition System", published in International Journal of Research in Engineering and Technology, Volume: 02 Issue: 12, Dec-2013, pp:222-226.
  - **D. Swargiary, J. Paul, R. Amin and H. Bordoloi**, "A Review Paper on Intelligent Brake & Parking Assist System" World Journal of Pharmaceutical Research, Volume 3, Issue 1, 286-294, ISSN 2277 – 7105.
  - **M. Gogoi, K. Mahanta, H.M. Khalid Raihan Bhuyan, D. J. Das and A. Dutta**, "Image and Video based double watermark extraction spread spectrum watermarking in low variance region" published in International Journal of Advanced Computer Science and Applications (IJACSA), 4(6), 2013. <http://dx.doi.org/10.14569/IJACSA.2013.040615>.
  - **U. Kalita, S. Kaping, J. Nellanatt, P. Helissey and J. N. Vishwakarma**, "A Facile Ultrasound-Assisted Regioselective Synthetic Strategy for Pyrazolo[1,5-a]pyrimidines Mediated By KHSO<sub>4</sub> In Aqueous Media" Hetero. Letters Vol. 4: (1), 2014.
  - **U. Kalita, S. Kaping, R. Nongkynrih, L.I. Singha, J.N. Vishwakarma**, "Novel Tetrahydropyrimidine-adamantane Hybrids as Anti-inflammatory Agents: Synthesis, Structure and Biological Evaluation" J. Acute Disease, submitted.
  - **U. Kalita, S. Kaping, R. Nongkynrih, M. Sunn, I. Boiss, L.I. Singha and J.N. Vishwakarma**, "Synthesis, Structure Elucidation and Anti-inflammatory/Anti-cancer/Anti-bacterial Activities of Novel (Z)-3-adamantyl-1-aryl-propyl-but-2-en-1-ones", Med. Chem. Research, submitted.
  - **S. Baruah, I. Dakua and J. Dutta**, "Fluorescent ZnS quantum dots for microbial detection" International Conference on Harnessing Natural Resources for Sustainable Development – Global Trend, Cotton College, Guwahati, 29th-31st January 2014.
  - **S. Baruah**, "ZnO nanorods for Energy Generation" International Conference on Green Energy & Smart Materials (GESM14), Gauhati University, 21st-24th January 2014.
  - **D. Mudoi and P. A. Kashyap**, "Vision based Data Extraction of vehicles in Traffic" in proceedings of IEEE International conference on Signal Processing and Integrated Networks (SPIN) Noida 2014.
  - **R. N. Ahmed, S. Bhattacharyya, R. Sarma, R. Saikia and K. Bhattacharyya**, "MUX-Based Design of DPLL for Wireless Communication", in the proceeding of 4th IEEE Sponsored International Conference on Information Communication and Embedded System, 27-28th February, 2014
  - **K. Mahanta, D. J. Das, H.M. Khalid Raihan Bhuyan, A. Dutta, and M. Gogoi**, "Design and Implementation of an MSI number based Image Watermarking Architecture in Transform Domain", published in IEEE International Conference on Signal Processing and Integrated Network, Amity University, 2014.
  - **S. Deka, P. Saengudomlert and S. Baruah**, "Dimming Control of OFDM-Based Visible Light Communications" National Conference on Emerging Global Trends in Engineering and Technology 2014, 7th & 8th March 2014.
  - **I. Dakua, S. Baruah and N. Afzulpurkar**, "ZnO nanorods on flexible substrates for piezotronic applications" National Conference on Emerging Global Trends in Engineering and Technology 2014, 7th & 8th March 2014.
  - **S. B. D. Borah, W. Soliman, J. Dutta and S. Baruah**, "Developing A Heavy Metal Ion Sensor Using Surface Plasmon Resonance on Gold Nanoparticles" National Conference on Emerging Global Trends in Engineering and Technology, 2014.
  - **R. Borgohain, J. Dutta and S. Baruah**, "LPG Sensing using Broccoli structured ZnO" National Conference on Emerging Global Trends in Engineering and Technology 2014, 7th & 8th March 2014.
  - **H. Deb, W. Soliman, J. Dutta and S. Baruah**, "Fabrication of a high sensitivity SU-8 photoresist Guided Mode Resonance Structure" National Conference on Emerging Global Trends in Engineering and Technology 2014, 7th & 8th March 2014.
  - **R. J. Borah, K. Sterxx, W. Soliman and S. Baruah**, "FPGA based characterisation of thin film for guided mode resonance devices using layer by layer deposition of nanoparticles" National Conference on Emerging Global Trends in Engineering and Technology 2014, 7th & 8th March 2014.
  - **J. Singha and K. Das**, "Automatic Indian Sign Language Recognition for Continuous Video Sequence" National Conference on Emerging Global Trends in Engineering and Technology 2014, 7th & 8th March 2014.
  - **S. Mukherjee and K. Das**, "Head and Shoulder based Human Detection in Real time", National Conference on Emerging Global Trends in Engineering and Technology 2014, 7th & 8th March 2014.

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## Entrepreneurship Development Camp

In an effort to promote and cultivate entrepreneurship culture in the minds of the budding engineers in the School of Technology, the Entrepreneurship Development and Incubation Centre (EDIC) organized 3-day Entrepreneurship Awareness Camps from 30 January to 1 February and from 20 to 22 March, 2014. Both the camps were organised in collaboration with the Entrepreneurship Development Institute of India, sponsored by the Department of Science and Technology, Govt. of India.

The programmes were meticulously planned and executed to incorporate basic concepts on entrepreneurship and, in the process, to allow the students to generate their ideas and develop those as products or services in the future.

The first camp was designed to expose the students to entrepreneurial competencies and to give them a basic know-how on business start-ups with a focus on technology. The students were also taken for industrial visits with an objective to familiarize them with various operational processes involved in the smooth functioning of an organization.

The format of the second workshop differed from the first, in terms of the involvement of more students in the process of promoting entrepreneurship. Students from different branches of engineering presented various promising projects which had a strong prospect of being commercialized. A total of 13 business ideas were presented in the process, which also inspired other student participants to present their ideas.

The workshops also invited eminent guests and prominent entrepreneurs of the region to share their experience and expertise with the participants. Some of the prominent speakers were Dr. Biswadip Barooah, Director, Technology Incubation Centre, IIT Guwahati; Dr. S.R.M. Prasanna, Prof., EEE Dept., IIT Guwahati; Mr. Arunava Sengupta, Ex Director, Tata Coffee Ltd.; Mr. Brijesh Singh, CEO, Brigosha Technology Pvt. Ltd.; Mr. Arunava Sarma Pathak, Head, My Taxi Services Ltd, and many more.

Both the workshops were exceedingly successful as the participants were highly enthusiastic about entrepreneurship and appreciated the initiative that EDIC has taken to boost entrepreneurship in the University's School of Technology and in the region.

**Rashmita Barua, Asst. Prof., DBCET**

