

## Report on SAMANTRANA 2018

SAMANTRANA 2018 is an initiative by Girijananda Chowdhury Group of institute to understand the vital issues of higher technical education. The second chapter of SAMANTANA was jointly organized by GIMT Guwahati and Assam Science and Technology University on 18 and 19 January. The theme of this two-day national seminar was *'the role and importance of research on technical education.'*

Mr. Ratul Das, the President, SSA Society inaugurated the seminar with his welcome address. The convener, Mr. Krishnanga Gohain explained the objectives of the seminar in his address to the gathering. Professor S.K Dutta, the Principal, GIMT Guwahati, in his welcome address focused on the importance of research, mainly how research is important for the development of students, teachers and thus, in turn, for the growth of the entire institute. The honorable vice chancellor, Assam Science and Technology University and the Joint Chairman of SAMANTRANA 18, Dr. Dhiraj Bora said that the technology itself is changing very fast and it is creating a lot of competition. To sustain in this competitive, era human beings have knowledge, but research gives the extra bit of ease for the required speed. In his speech, Dr. Bora also discussed different types of research and their application on different fields. Defining research, he said research is a quest for new meaning. Research will help in understanding in a better and easier way to look at new answers and new theories. According to Dr. Bora, education has the risk of being outdated and research is the one way to overcome this risk. That is why one needs to be honest and patient in doing research and presenting facts. Research reflects one's both personal and professional personality. Therefore, a planned and methodic research is desirable. Dr. Bora also advised that our endeavor should be to do good research rather than correct research because research can lead to economic development and in turn to social growth. His concluding remarks also stressed on saving the environment by doing useful research.

The Guest of Honour of SAMANTRANA 2018 was Professor Kulendu Pathak who was the former Vice Chancellor of Dibrugarh University. Professor Pathak pointed out that research is essential for survival of humankind. According to him, research is looking at things differently. He started his discussion by stressing on the point that changes are very fast in the world of technology and everywhere. He also compared the scenario of research in the education system of India and western countries. In western countries, children are encouraged to do research at a very young age, but Indian education system is still lagging behind in this respect. Therefore, he said that research should be built in the system and it should not be an appendix but should be integrated.

The third speaker of the first day was Prof. A.K. Das, the. He said research is needed everywhere for attaining humanity. Research does creations of innovations and design plays an important role in it. He also emphasised on the importance of context while doing research. Research is productive only when people can adopt it. So, one has to understand people and the needs while doing research. He also said that research has to be enjoyed. Professor Das also cited some examples how a researcher has to face difficulties while doing research. At this stage, he cited example of his own challenges while designing 'Dipbahan.'

The post lunch session was inaugurated with Late Mrs Bina Chowdhury memorial lecture. It is an initiative to pay homage to Late Mrs Bina Chowdhury who was the founder President of SSA and a philanthropist. The keynote speaker of this session was Dr Jayanta Das who is a renowned psychiatrist and a beloved actor. The topic of his lecture was *'impact of electronic gadgets on the learning ability of*

*students*'. In this very fascinating and informative lecture, Dr Das illustrated many important aspects like mental health, impacts of gadgets, gadget hygiene with different statistics and examples. At the beginning of his lecture, he interestingly compared of the speed of change in technology over different phases of time. He described how human beings are not able to cope with this tremendous speed of change and how it is affecting the mental health and the society. According to him, health especially mental health is very necessary for the development of society, because in absence of health, wisdom cannot reveal itself; intelligence cannot be applied and wealth becomes useless. Having thus building the background of his talk, Dr Das drew the attention of the audience to various impacts of gadgets on education and young students. He first talked about the parallel between education and technology. Technology can, no doubt, help in achieving the three fold objectives of education, i.e. attaining maturity in intelligence, mental ability and social spectrum. However, a student's emotional quotient should be taken into account for success. Unfortunately, we are putting more stress on perceptual knowledge than on conceptual knowledge and gadgets and technology play a role in it. Talking about the positive impacts of gadgets, Dr Das said that use of gadgets can enhance teaching learning; diminish global limitations; creates easy access to knowledge and can make leaning enjoyable. However, the negative impacts are far more alarming. The excessive use of gadgets can destroy a child's communicative abilities as he/ she may not like to socialize. It also lead to lack of focus and the child tend to be involved in multitasking e.g. eating and chatting on mobile at the same. This makes the student to give divided attention on tasks. Too much use of gadgets also harms a student's language abilities e.g. writing skills, proper use of grammar and spelling, etc. More disturbing impacts are that these gadgets affect the mental health of the child. Dr Das said that a child, who uses gadgets a lot, is prone to addiction and distraction. He/she may distance oneself from real life and alienate from society. Therefore, Dr Das urged the parents to keep an open eye to these matters so that their children do not become addicted to the use of gadgets. He said that although there are various treatment and consultancy in clinical psychology, but the main role must be played by the parents and teachers so that the young students can develop their identity in a healthy environment and can become good citizens. In the last part of his speech, he gave some useful tips of gadget hygiene and concluded that technology is a blissful servant but a dangerous master. He insisted that the students should be taught life skills, maturity, oneness with nature and teachers are responsible in creating the pathway for them to become good human beings.

The first day of SAMANTRANA 2018 concluded with the talk by Dr Maushumi Barooah, Head, Computer Application, AEC, on '*current scenario of technical education in India.*' This was yet another informative lecture, which was targeted especially for the students to have a detailed idea of various schemes and courses for enhancement of their skills. Dr Barooah, in the beginning of her talk, asked a self-retrospective question: whether we are ready for the challenges in the world . She said that success of economy depends on skills, knowledge. Therefore, we need to become globally accepted work force. For that, we need to sharpen our skills and curiosity to know what is happening in the world. In this regard, she mentioned names like Ishita and 40 learners, Malavika Joshi etc and said how these self taught Indians saw success because of their determination and hard work. Having talked about these requirements, Dr Barooah gave the students an extensive list of government initiatives, which are focused on developing and upgrading the students for fast changing global scenario. Her long list included MOOCKS, Crowd sourcing, entrepreneurship, AICTE initiatives like SWAYAM, HACKATHON, and other central and state government schemes like GIAN, Chatraviswakarma award, Swami Vivekananda Scholarship Ishan Vikash, Ishan Uday, Unnat BBharat Abhiyan, Uchhatar Aviskar Yojna and many more.

Dr. Barooah advised the students to open their mind to new knowledge and keep a phrase in mind 'learn, unlearn and relearn.'

The second day of the seminar was as productive as the previous day and the lectures provided the audience with a lot of food for thought. The first speaker of the day was Professor Debakanta Chakraborty of Mechanical engineering, IITG. His talk was on the '*importance research on undergraduate technical education*'. Professor Chakraborty gave insightful details on all the important issues of research, first talking about the types of research and their application. He emphasized on the question asking abilities of human minds. He said that we enjoy our comforts today because some scholars ventured to ask questions on many important issues and find the answers. He mentioned Galileo, in this regard, who had to risk his life to prove what he believed. According to Professor Chakraborty, research improves the quality of teaching. It is needed in every phase of life. Research can generate adequate human resource in response to the need of time. Professor Chakraborty also discussed the impact of research in technical education. He laid stress on improving the infrastructural facilities of institutes for further research. Grants and funding should be properly utilized to provide and develop state of art facilities needed for research. These facilities should be made available to students, enriching their studies and training. He also mentioned that young students can do better research because of their fresh minds and enthusiasm. So, they should be encouraged for that. Sir also emphasized on introduction of interdisciplinary research. Thus, there will be a flow of information from many angles of different fields. This will help the researchers to contribute to the growth of the society. He further opined that if research is not based upon research and evidence, it runs the risk of being based on dogma, prejudice, ideology etc. that should not be encouraged. Teachers need to motivate basic research by practicing scientific thinking, encouraging questions and giving compulsory problem solving.

Professor Dhruva Kr Bhattacharya of Department of Computer Science and Engineering of Tezpur University was the second speaker of the day. He gave a lecture on technology led innovation to address India's challenges. He said the focus should be on Science, Technology and Innovation Policies, 2013. He said present era is an era of innovation. Innovation implies science and technology based solutions that can successfully utilized for handling social economic problems. According to Professor Bhattacharya, there must be mutual benefit for both academia and industry. They should move hand in hand for development. He suggested that academia and industry should exchange human resource. He said that let industry be an evaluation of academic dissertation as they face the real problems in their field. The small start ups can also take trainees from academia. In this way, the young students will see the real problems encountered and the company will also have a prior knowledge about the quality of the future incumbents. So, both industry and academia should deepen their relationship. He put forward some areas where this can happen for example, introducing virtual test based development which can be established with help of industry; involving both in PhD programs, Faculty Development programs etc. he said that to establish cutting edge and world standard infrastructure, R & D has to gain global leadership.

The next speaker of the day was Professor Deben Chandra Baruah, Department of Energy, Tezpur University. He also gave an informative lecture on *intellectual property rights*. He defined IPR as commercially useful creations of mind. Effective IP system creates incentives for innovators and incentives are basic driving force. He gave detailed information on various issues on IPR and their

characteristics and implementations. Talking about the global trend and Indian status on IPR, he stressed on evolving a harmonized system within an enforceable international framework. He also discussed about the tendency of preserving and protecting knowledge and skill. Finally, he also drew attentions to enumerable do's and don'ts of applying for patents.

Mr. A.S.Dewan, member of faculty, IIE Guwahati, had his discussion centered on aspects on entrepreneurship. He said that entrepreneurship can be a key solution contributing to the economic development of the North East. In his opinions, entrepreneurship can give satisfaction to an individual for he/ she can create opportunities to give employment to others. It gives a sense of independence. Entrepreneurship also opens the scope for utilizing the local resources properly. However, despite all these merits, the young aspirants do not consider entrepreneurship as the career option. They keep it as the last option, but are still afraid to venture out in this field. The reasons may be lack of awareness, proper guidance and reluctance of taking risks. He said that entrepreneurship can help in reducing regional imbalance; it gives one more opportunity to take responsibility, own decision-making and in turn entrepreneur can become an asset to the society. Dr. Dewan strongly said that personality does not come from looks; it is reflected in qualities like realistic, decision-making, creativity, innovativeness, and confidence. These make a person strong and it is the most desired quality in today's world. Answering a student's query as to how to become an entrepreneur, Dr Dewan advised that first, one has to make up one's mind and work hard. Entrepreneurs have another benefit that they do not have any stereotyped eligibility criteria. They must have the courage to start something on their own and have a strong determination. He invited all interested people to IIE where they can get proper guidance and help. He also made the audience aware of many schemes to help the entrepreneurs. Again answering a question on women's opportunities in this field, he happily announced that the women entrepreneurs are more successful than their male counterparts in our region. He concluded advising the young students not to look for opportunities but to find difficulties which leads to find the solutions.

The last talk of the day was from Professor Sachindra Kakoti, head, Centre for rural development, IITG. His lecture was enriched with exhibitions of designs of many machines developed to help our local people meet their needs with minimum investment. He said that in entrepreneurship one has to gather knowledge. Knowledge can be of three types: what I know, I know who knows and I know where it is. Therefore, to produce something there should be a blend of these pieces of knowledge. He also discussed the role of NGOs in finding the solutions to local problems. He showed various designs of machines like chaff cutting machines, Eri cocoon opener, betel nut cutter, power loom etc, which are helping manufacturer as well as the users by creating jobs for our local people.

The last session of SAMANTRANA 2018 was a panel discussion on the topic '*promotion of research culture towards achieving inclusive development*'. The moderator for the panel discussion was Professor P.K Dutta, senior professor of Mechanical Engineering, GIMTG and the participants were Professor Sachindra Kakoti, Professor P.K Bordoloi, Dr. Th Santa Kumar, Dr. A.S Dewan and Mr. Abhinandan Saikia from TISS. The one-hour discussion provided the listeners with many insightful ideas and made them think critically about the ways to promote research in practical ways. Starting the discussion, the moderator invited Professor Kakoti to give his views on the topic. Professor Kakoti said that past was the

time of discoveries and inventions and the present era is of innovation. He again drew the attention to the fact that the world is changing fast. So, to meet our need we have no option than research. He called upon the youth to do need based research. He said that we should not be afraid to do research because research means enhancement of knowledge, which leads to benefit of society. Professor P. K Bordoloi said research culture encompasses all stakeholders of an institution. The projects students do during their curriculum should result in products. Therefore, he emphasized on giving the students original ideas for projects. Mr. Abhinandan Saikia suggested that interdisciplinary research should be encouraged. He also argued for the collaboration among the stakeholders of the research environment. Dr. Dewan also strongly advocated that an environment of research should be encouraged by empowering the youth.

SAMANTRANA 2018 indeed exhibited a successful flow of thoughts and ideas. The eminent keynote speakers, in their speeches, established how research is important for the betterment of the society and humankind. The participants, undoubtedly, received a lot to boost their mental stimulation and carried back something to be seriously considered.

