## **Faculty Development Programme (FDP) Advanced ICT Tools for Teaching and Research**

With an aim to facilitate the academia in adopting and using ICT in their teaching, learning, and research, eight days long Faculty Development Program was organized by the AIU Academic and Administrative Development Centre (AIU-AADC), Berhampur University from February 14–21, 2023. In total, 41 faculty members from different colleges and universities of the country participated in the program, with 20 male and 21 female participants. The program's main objective was to train the teachers on integrating ICT tools in their teaching and learning process and become smart teachers and researchers. The workshop was highly beneficial for the teachers in applying ICT in their teaching and research work.

The FDP had 15 sessions covering various topics and hands-on training on

- Effective use of ICT for transforming pedagogy and empowering students
- Online/blended learning
- MOOCs for teaching and learning
- Enhancing education using easy-to-use and open-source tools for learning
- Understanding learning management systems
- Developing suitable pedagogical methods for various classes
- ICT use for research and publications.
- Human Centric Technology for Teaching and Learning

The sessions were designed to provide a comprehensive understanding of advanced ICT tools for teaching and research and practical sessions were also included to ensure that the participants gained hands-on experience. 13 distinguished speakers from State Universities, central universities, Cambridge University and other Institutes of National Importance, e.g. IIT, IIIT, and IIM, delivered their sessions during FDP programme.

On 14th February 2023, the inaugural ceremony of the Faculty Development Program (FDP) was held at Berhampur University in Berhampur, India. The event started with the lighting of the lamp and Saraswati Vandana. Dr. Mrutyunjay Swain, AADC Nodal Officer AIU-AADC, Berhampur University and the convener of the program delivered the welcome address. Dr. Raj Kishore Kampa, the Program Coordinator, introduced the guests and the event's topic. Dr. P.K. Mohanty, Chairman, PG Council, Berhampur University, and Prof. Geetanjali Dash, Hon'ble Vice Chancellor, Berhampur University and Dr. Amarendra Pani, Joint Director & Head, Research Division, Association of Indian Universities, addressed the participants. Dr. Saswat Sourav Mohapatra, the joint programme coordinator offered a vote of thanks to invited guests and participants.

On 14<sup>th</sup> February 2023, a talk was given by Prof. Manas Ranjan Patra, Professor of Computer Science, Berhampur University on the topic "ICT Tools for Preparing towards University 4.0." The discussion centred on the technological advancements and tools universities must adapt to keep up with the fourth industrial revolution. Prof. Patra emphasized the importance of

incorporating information and communication technologies (ICT) in the education system to enable universities to offer students a more flexible and personalized learning experience. He also discussed the challenges and opportunities of implementing these tools, such as increasing student engagement and improving the quality of education. Overall, the talk provided valuable insights into how universities can leverage ICT tools to prepare for University 4.0 and meet the evolving needs of students and the workforce.

On 15<sup>th</sup> February 2023, Dr. Shiba Prasad Panigrahi from VSSUT, Burla delivered a lecture on "Basic Structure Doctrine Vs. Paradigm Shift in Pedagogy,". Dr. Panigrahi explored the possibility of a paradigm shift in pedagogy, which could help address the shortcomings of the traditional education system and promote a more inclusive and equitable approach to education.

Prof. Siba K Udgata from the Dept of Computer Science, University of Hyderabad delivered his lecture on "Online Teaching and e-Content Development during and Beyond Pandemic," Prof. Udgata talked about the shift to online teaching occurred during the pandemic and the challenges that came with it. He discussed the importance of e-content development in ensuring the quality and effectiveness of online education and the need to focus on creating engaging and interactive content that can keep students motivated and interested in learning.

On 16<sup>th</sup> February 2023, Prof. Aryabartta Sahu from IIT Guwahati deliberated on the topic "Open source tools for teaching and learning,". Prof. Sahu discussed the benefits of using open-source tools for teaching and learning and highlighted some popular open-source tools widely used in education. He also demonstrated how these tools can be used effectively in online and offline learning environments.

Prof. Bulu Maharana from Sambalpur University, Odisha discussed 'The role of MOOCs in the open education ecosystem: Current trends and future prospects'. Prof. Maharana talked about the current trends in Massive Open Online Courses (MOOCs) and their potential to transform the open education ecosystem. He discussed the benefits and challenges of MOOCs and highlighted some of the key players in the MOOC market. He also discussed the potential future prospects of MOOCs in providing accessible and affordable education to learners across the world.

On 17th February 2023, Dr. Gurpreet Singh Josan, an Associate Professor from Punjabi University, Patiala spoke on the topic "Learner-Centric Models for Online Teaching". Dr. Josan emphasized the importance of designing learner-centric online courses and presented various learner-centric models for online teaching. He discussed the characteristics of learner-centric models and highlighted the advantages of adopting such models for effective online teaching.

A special invited lecture on 'Human Centric Technology for an Inclusive Education System' was delivered by Prof. Manoj Dora, Director, Centre for Intelligent Supply Chains, Chair in Sustainable Production & Consumption, School of Management, Anglia Ruskin University of Cambridge. The session was highly interactive with insightful discussions on how to make use of technology and ICT tools for disadvantaged groups of learners.

Prof. Rakesh Mohanty from VSSUT, Burla spoke on 'Joy of Creativity, Innovation and Research'. Prof. Mohanty talked about the importance of creativity, innovation, and research in education and research. He discussed how these elements can be integrated into the teaching and learning process. He emphasized the need for a collaborative approach towards research

and innovation and highlighted the role of teachers in nurturing creativity and innovation among students.

On 18<sup>th</sup> February 2023, Prof. Ashish Khosla from Shoolini University delivered on two important issues related to ICT tools and their application by faculty members. The first topic was "Effective use of ICT for transforming pedagogy and empowering students", which focused on the role of Information and Communication Technology (ICT) in enhancing the quality of teaching and learning experiences for students. Prof. Khosla emphasized the importance of using innovative ICT tools and techniques to transform traditional teaching methods and create learner-centric environments that encourage student participation and engagement.

In the second session, Prof. Khosla spoke on "Enhancing education using easy-to-use open source and freemium tools", which discussed the potential benefits of using free and open-source software (FOSS) in education. Prof. Khosla highlighted various FOSS tools and resources that can be used by educators to create engaging e-learning content and deliver effective online teaching. He also discussed the advantages of using freemium models, which offer users a combination of free and premium features.

On 19-02-2023, there were two sessions of the FDP. The first session was on "Application of ICT Tools for Teaching and Research" by Dr. Manoj Kumar Dash from IIITM, Gwalior. The second session was on "ICT Tools for Research and Bibliographic Management" which was also delivered by Dr. Manoj Dash from IIITM, Gwalior. He provided some hands-on training to all the participants.

On 20-02-2023, the first session was on "Maximizing Research Productivity and Impact through ICT Tools" which was delivered by Dr. Sevukan from Pondicherry University. The second session was on "Research contents, tools and techniques for Research Support Service" delivered by Dr. Samir Kumar Jalal from IIT Kharagpur. Dr. R Sevukan, Pondicherry University and Dr. Samir Kumar Jalal, IIT Kharagpur discussed how different ICT tools like Grammarly, Mendeley, and Latex including the research database can be used to maximize the research productivity.

On the last day of the programme, 21st February 2023 (8th day), Prof. Parthasarathi Mukhopadhyay, Kalyani University, WB discussed 'the Four Quadrants of the virtual learning environment: e-contents, e-tutorials, web resources, and assessments proposed by the department of higher education, India. He elaborated on various open-source software for each quadrant.

The valedictory session of the FDP was attended by several dignitaries, faculty members and other participants. Dr. M. Swain, Nodal Officer, AAU-AADC, Berhampur University and the convener of the programme welcomed the guests, followed by an address by Dr. Amarendra Pani, Joint Director & Head, Research Division, Association of Indian Universities. Dr Pani said that Berhampur University is one among 10 universities in India selected for undertaking collaborative activities and programmes directed towards training and capacity-building of faculty members and administrative functionaries to deal with hybrid/blended learning with a focus on the latest pedagogical reforms. The Coordinator of the FDP, Dr. R.K. Kampa, presented a brief summary of the various sessions held during the FDP. The Hon'ble Vice Chancellor, Berhampur University, Prof. Geetanjali Dash, addressed the audience. Expressing

her satisfaction at the successful organisation of the FDP, Berhampur University Vice-Chancellor Prof. Geetanjali Dash assured that more such programmes will be organised for improving the skills of teachers and administrative staff of the university and colleges. The Chief Speaker of the session Prof. A.K. Pujari, Former Vice Chancellor of Sambalpur University, Sambalpur and Former Vice Chancellor of Rajasthan Central University, delivered his talk on the usefulness of various ICT tools for teaching and research. The Chief Guest, Prof. Amarendra Narayan Misra, Former Vice Chancellor of Khallikote University, Berhampur, delivered the valedictory address. Finally, the session ended with a vote of thanks by Dr. Saswat Sourav Mohapatra, Jt.-Coordinator of the FDP. All those who completed the FDP were awarded a certificate of participation. Dr Tamoghna Acharya, Associate Professor of the Department of Marine Science, Berhampur University, was adjudged as the 'Best Participant' for his enriching discussions during various sessions and performance in the test.