REPORT

One Week National-Level Online Faculty Development Programme (FDP) on *Strategies for Developing Outcome Based Curriculum & Utilizing Digital Tools in Education*

organized by

Institution's Innovation Council (IIC)

NETAJI SUBHAS OPEN UNIVERSITY (NSOU)

in collaboration with

UTTARAKHAND OPEN UNIVERSITY (UOU)

Date: 11/11/2024 to 19/11/2024

Time: 7pm to 9pm

Mode: Online (Synchronous and Asynchronous)

Participants: 60 including faculties, research scholars and other academicians

1st One Week National-Level Online Faculty Development Programme (FDP) conducted by the Institution's Innovation Council (IIC), Netaji Subhas Open University (NSOU) in collaboration with Uttarakhand Open University (UOU) during **11-19th November, 2024** through Learner Management System (LMS). The theme of the FDP is **"Strategies for Developing Outcome Based Curriculum & Utilizing Digital Tools in Education**)". The inaugural programme started at 6.00 PM through the "Zoom Platform. The inaugural session was Chaired by the Professor Indrajit Lahiri, Hon'ble Vice-Chancellor, NSOU, Chief Guest, Dr. Basheerhamad Shadrach, Director, CEMCA. Inaugural Address by Prof. Anirban Ghosh, President, IIC, Head of the Department of Commerce and Management, Director SPS, SVS & CIQA. The theme of the Faculty Develop Programme was introduced by Professor Jeetendra Pande, UOU. Special address was delivered by Professor Indrajit Lahiri, Hon'ble Vice-Chancellor, NSOU and Professor O.P. Negi, Hon'ble Vice-Chancellor, UOU. Vote of thanks was proposed by Dr. Ashutosh Kumar Bhatt, UOU, Jt. Assistant Coordinator, FDP-2024. The entire session was moderated by Professor Ritu Mathur Mitra, Professor, Department of History, FDP Jt. Coordinator, NSOU.

Inaugural Session (DAY-1: 11-11-2024 6.00 PM)

Professor Ritu Mathur Mitra, Professor, Department of History, FDP Jt. Coordinator, NSOU compered the program. Prof. Mitra briefed the session and introduced the dignitaries to the FDP audience.

Prof. Anirban Ghosh, President, IIC, Head of the Department of Commerce and Management, Director SPS, SVS & CIQA and Chair Person of FDP-2024 extended his warm welcome to all the distinguished speakers, guests and the participants to the Seven days National Faculty Development Programme (FDP) on "Strategies for Developing Outcome Based Curriculum & Utilizing Digital Tools in Education)". He gave a brief background of NSOU and shared how the university has grown up since 1997 and has been accredited with A grade by NAAC, got 12B and attained 2nd position in Open University category in the country. The NSOU has five campuses across the West Bengal (Salt Lake-HQ, Newtown (upcoming new campus), Regional center (Kalyani, Durgapur, Jalpaiguri). NSOU caters around Five lakhs' learners across 33 courses (disciplines) PCP through RCs and around 175 centers across the State. The NSOU has made significant achievements during this period.

Professor Indrajit Lahiri, Hon'ble Vice-Chancellor, NSOU started with the relevance of digital tools under New Education Policy (NEP) 2020. He also emphasized on the importance of Outcome-Based Education (OBE) in transforming India's higher education landscape. To achieve this, it is essential to develop OBE curricula and utilize digital tools in education. Developing OBE curricula involves defining clear learning outcomes, adopting an interdisciplinary approach, encouraging flexibility and adaptability, and using continuous assessment. Utilizing digital tools in education is also crucial for enhancing the learning experience. This can be achieved through the use of Learning Management Systems (LMS), Artificial Intelligence (AI) tools, Virtual and Augmented Reality, and online collaboration tools. These digital tools enable personalized learning experiences, foster collaboration and communication among students and faculty, and provide instant feedback and assessment. To implement OBE and digital tools in education effectively, it is essential to develop clear learning outcomes and align them with the curriculum and pedagogy. Providing continuous professional development opportunities for faculty and non-faculty members is also crucial. Additionally, implementing innovative assessment methods and providing continuous feedback to ensure students achieve learning outcomes is vital. In conclusion, developing OBE curricula and utilizing digital tools in education can transform India's higher education landscape. By adopting these strategies, educators can create student-centric learning environments that foster holistic development, interdisciplinary thinking, and continuous assessment. He concluded his lecture with a hope of obtain lots of innovative ideas would emerge from these seven days Faculty Development Programme (FDP).

Chief Guest, Dr. Basheerhamad Shadrach, Director, CEMCA considers a great honor to join with the team of Netaji Subhas Open University to discuss how our educational landscape at the tertiary level is being transformed through the idea of OBE– Outcome-Based Education which is important when we are looking to combine skills and competencies necessary for our earners to

thrive in the 21st Century Marketplace. He emphasized on the significance of Outcome-Based Education (OBE) in transforming India's tertiary education landscape. OBE is a philosophy that places learners at the center of their educational experience, focusing on holistic development, interdisciplinary thinking, and real-world applications. The National Education Policy (NEP) 2020 highlights OBE as a key approach to achieving a more comprehensive and inclusive education system. The policy aims to produce well-rounded individuals equipped with the skills, competencies, and values necessary to thrive in the 21st century marketplace. To implement OBE effectively, educators must define clear learning outcomes, aligning them with the curriculum and pedagogy. This requires a shift from traditional teaching methods to more innovative, project-based, and problem-based approaches. Dr. Shadrach also stressed the importance of capacity development for faculty and non-faculty members, recognizing the need for continuous professional development to foster a culture of innovation and pedagogical excellence.

Professor O.P. Negi, Hon'ble Vice-Chancellor, UOU assumes that the education scenario is changing fast. Prof. Negi outlined that the education scenario in India is undergoing a significant transformation under the National Education Policy (NEP) 2020. The policy emphasizes a shift from rote learning to competency-based education, focusing on holistic development, intellectual, social, physical, emotional, and moral development. It promotes interdisciplinary and multidisciplinary learning, digital literacy, and online education, while also emphasizing the importance of teacher training and development. Additionally, NEP 2020 aims to make education more inclusive and equitable, with a focus on skills and vocational education, and assessment and evaluation reforms. Overall, the policy seeks to prepare learners for the challenges of the 21st century, making India's education system more competitive, innovative, and effective. Prof. Negi also wished a grand success to the FDP on Strategies for Developing Outcome Based Curriculum and Utilizing Digital Tools in Education as is high time to use modern digital tools in our teaching.

Dr. Ashutosh Kumar Bhatt, Associate Professor of Computer Science, UOU, Jt. Assistant Coordinator of this FDP proposed the vote of thanks in the inaugural session.

Day-1: 11-11-2024 7.00– 9.00PM)

Professor Ritu Mathur Mitra, Professor, Department of History, FDP Jt. Coordinator, NSOU briefed the session and introduced the resource person Prof. Pradeep Kumar Misra NIEPA, New Delhi to the FDP audience. The coordinators of this session are Dr. Ritu Mathur Mitra, Professor of History, NSOU & Dr. Ashutosh Kumar Bhatt, Associate Professor of Computer Science, UOU.

Prof. Pradeep Kumar Misra NIEPA, New Delhi explored the multifaceted concept of education, emphasizing its role in imparting knowledge, reasoning, and judgment for intellectual maturity. Education involves deliberate efforts to transmit knowledge, values, skills, and attitudes, as highlighted by various definitions. Outcome-Based Education (OBE) is a significant focus, advocating for a shift from traditional credit accumulation to achieving high-order learning and cognitive skills mastery. OBE emphasizes measurable results, necessitating institutional restructuring of programs, courses, and assessment systems. Additionally, distinctions are made between educational components like programs, courses, and papers, alongside clarifying aims, objectives, and outcomes within teaching and learning. The lecture further discusses learning outcomes, their significance, and their role in guiding course content, assessments, and teaching strategies. The ABCD framework (Audience, Behavior, Condition, and Degree) serves as a method for writing effective learning outcomes, aligning with Bloom's Taxonomy for educational goals. Examples from various disciplines illustrate the practical application of these principles. The session concludes with insights into 21st century teaching, emphasizing joyful, holistic, and multidisciplinary learning environments, the integration of technology, and the development of teaching competencies for modern educators.

The session ended with vote of thanks to the resource person, dignitaries and the participants by Dr. Ashutosh Kumar Bhatt, Associate Professor of Computer Science, UOU.

Day-2: 12-11-2024 (7.00– 9.00PM)

Dr. Shalini Choudhury, Assistant Professor, Economics, UOU briefed the session and introduced the resource person Dr. Papiya Upadhyay, Assistant Professor of Education, NSOU to the FDP audience. The coordinators of this session are Dr. Shalini Choudhury, Assistant Professor of Economics, UOU and Dr. Vishal Kumar Sharma, Assistant Professor of Physics, UOU.

Dr. Papiya Upadhyay, Assistant Professor of Education, NSOU focused on measuring Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) is essential for ensuring the quality of higher education programs. It allows institutions to evaluate their effectiveness in achieving intended learning goals and identify areas for improvement. The process involves direct methods, such as analyzing student performance in exams, projects, and lab work, and indirect methods, including feedback from alumni, employers, and students. By combining these approaches, institutions can assess the alignment of academic activities with desired outcomes, enabling a data-driven evaluation of program success. A significant aspect of the measurement process is the distinction between Course Outcomes (COs) and Learning Outcomes (LOs). COs represent broader, instructor-centered objectives aligned with program outcomes, while LOs are specific, measurable, and student-centered, focusing on what students should achieve by the course's end. Understanding and defining COs and LOs ensure that teaching strategies and assessments are effectively designed to meet program goals, enhancing the teaching-learning experience and fostering student success. Dr. Upadhyay also highlighted the importance of tools like the CO-PO matrix, which maps COs to POs, helping educators establish the strength of their alignment. By assigning ratings to each relationship, institutions can identify gaps in curriculum design, ensuring that course-level objectives contribute meaningfully to program-level outcomes. This structured approach not only supports continuous improvement but also ensures graduates are well-prepared to meet industry and societal expectations, reflecting the program's effectiveness.

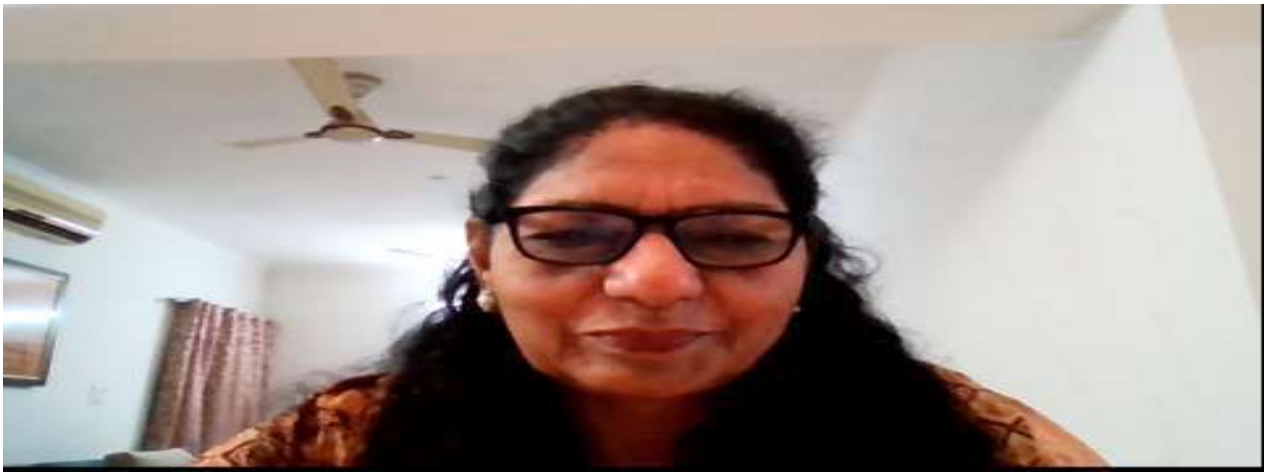
The session ended with vote of thanks to the resource person, dignitaries and the participants by Dr. Vishal Kumar Sharma, Assistant Professor of Physics, UOU.

Day-3: 13-11-2024 (7.00– 9.00PM)

Dr. Sudarshan Roy, Assistant Professor of Commerce, NSOU, Jt. Assistant Coordinator of this FDP briefed the sessions and introduced the resource person Professor Madhu Parhar, IGNOU to the FDP audience. The coordinator of this session is Dr. Sudarshan Roy, Assistant Professor of Commerce, NSOU.

Professor Madhu Parhar, IGNOU started with the assessment process which evaluates learner's attainment of Program Outcomes (PO), Program Specific Outcomes (PSO), Course Objectives, and Course Outcomes through a range of evaluation methods, including quizzes, assignments, projects, and exams. The assessment results are used to measure learners learning outcomes, identify areas for improvement, and inform curriculum revisions to ensure alignment with the program's goals and objectives. The integration of Outcome-Based Curriculum (OBC) and digital

tools in education has transformed the learning landscape. This approach enables educators to create student-centric learning environments that foster holistic development, interdisciplinary thinking, and continuous assessment. By leveraging digital tools, educators can deliver personalized learning experiences, enhance student engagement, and provide instant feedback and assessment. Digital tools such as Learning Management Systems (LMS), Artificial Intelligence (AI) tools, and Virtual and Augmented Reality have become essential in modern education. These tools enable educators to track student progress, identify knowledge gaps, and provide targeted support. Moreover, digital tools facilitate collaboration and communication among students and faculty, promoting a sense of community and social learning. The Outcome-Based Curriculum approach enables educators to define clear learning outcomes, align them with the curriculum and pedagogy, and assess student learning in a more effective and efficient manner. This approach ultimately leads to improved learning outcomes, increased employability, and better preparedness for the challenges of the 21st century. By combining Outcome-Based Curriculum with digital tools, educators can create a powerful learning environment that supports student success and achievement.



The session ended with vote of thanks to the resource person, dignitaries and the participants by Dr. Sudarshan Roy, Assistant Professor of Commerce, NSOU, Jt. Assistant Coordinator of this FDP.

Day-4: 14-11-2024 (7.00-9.00PM)

Dr. Soumen Nandi, Associate Professor of Computer Science, NSOU briefed the session and introduced the resource person Dr. Shaunak Roy, St. Xaviers Institution (Autonomous), Kolkata to the FDP audience. The coordinator of this session is Dr. Soumen Nandi, Associate Professor of Computer Science, NSOU.

Dr. Shaunak Roy St. Xavier's College (Autonomous), Kolkata outlined that online education accelerated by the COVID-19 pandemic which has compelled educators to rethink traditional teaching methods to create more engaging and effective online learning experiences. Innovations like microlearning, personalized learning paths, and gamification have revolutionized how content is delivered, making it more interactive and tailored to individual learner needs. Blended learning models, which combine online and face-to-face teaching, have also gained prominence, offering flexibility and catering to diverse learning styles. Advances in technology have played a significant role in enhancing online education. Learning Management Systems (LMS) like Moodle, Blackboard, and Canvas enable educators to create interactive course content, conduct

assessments, and foster collaboration among students. Video conferencing tools such as Zoom, Microsoft Teams, and Google Meet further enrich the learning experience by facilitating real-time engagement, integrating features like breakout rooms, live polls, and collaborative whiteboards. These tools make virtual classrooms dynamic and inclusive while addressing accessibility needs through captions and multilingual support. Despite these advancements, educators face challenges such as maintaining student engagement, ensuring accessibility, and selecting the right platforms for their needs. To overcome these, educators can adopt innovative practices, such as integrating multimedia elements, fostering peer collaboration, and leveraging analytics to track learner progress. Continuous adaptation to emerging trends and technologies ensures that online teaching remains impactful, preparing students for a rapidly evolving digital landscape.

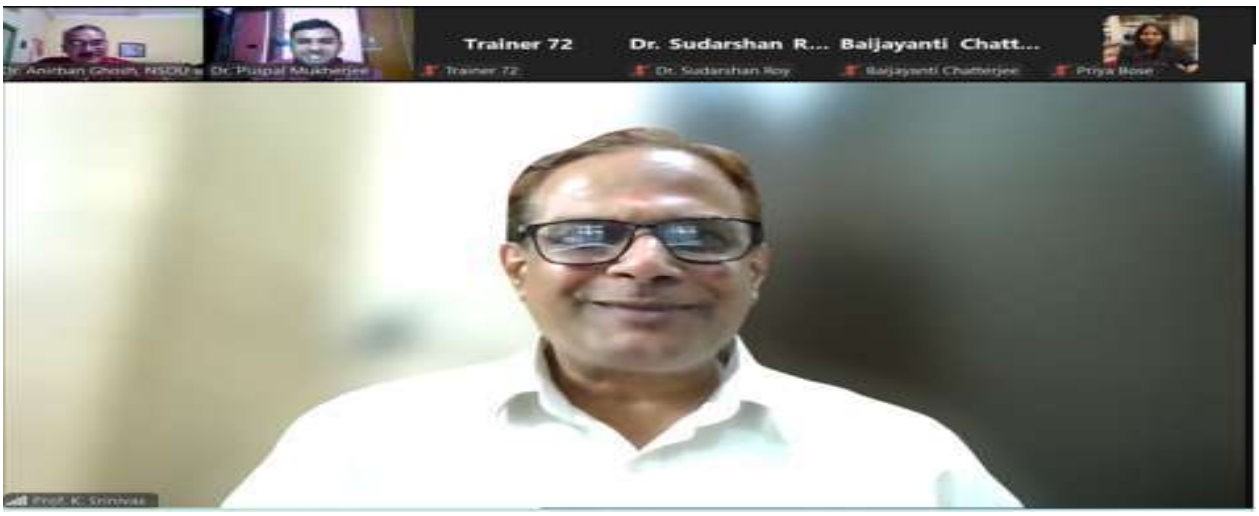
The session ended with vote of thanks to the resource person, dignitaries and the participants by Dr. Soumen Nandi, Associate Professor of Computer Science, NSOU.

Day-5: 16-11-2024 (7.00– 9.00PM)

Dr. Puspal Mukherjee, Assistant Professor of Chemistry, NSOU briefed the session and introduced the resource person Professor K. Srinivas, NIEPA, New Delhi to the FDP audience. The coordinator of this session is Dr. Puspal Mukherjee, Assistant Professor of Chemistry, NSOU.

Professor K. Srinivas, NIEPA, New Delhi started with ‘Alternative Education Technology’. As per Professor Srinivas Alternative education technology refers to innovative tools and approaches that go beyond the conventional methods of teaching to provide more engaging, flexible, and personalized learning experiences. Traditional education systems, with their rigid structures and one-size-fits-all curricula, often fail to accommodate the diverse learning needs of students. Limited access to resources and a predominant focus on passive learning leave little room for creativity, critical thinking, and real-world application, making it essential to explore alternative technologies to overcome these challenges. Alternative education technology addresses these limitations by introducing tools and platforms that foster active engagement, personalized learning, and accessibility. Interactive simulations, gamified learning environments, and multimedia resources make learning more enjoyable and impactful. Adaptive learning platforms enable personalized instruction, tailoring content to individual performance and

learning styles. Collaborative tools such as virtual classrooms and online forums further encourage teamwork and global connectivity, enriching the learning experience through shared Ideas and diverse perspectives. The future of alternative education technology is set to be transformative, with advancements in virtual reality, artificial intelligence, and data-driven insights reshaping how education is delivered. Virtual reality will create immersive environments for experiential learning, while AI will enable real-time feedback and highly customized learning paths. Learning analytics will empower educators with actionable data, allowing them to refine teaching strategies and improve outcomes. These innovations promise to make education more inclusive, adaptive, and impactful, preparing students to thrive in an increasingly dynamic world. Professor Srinivas further added that Creative Commons licenses provide a framework that enables the flexible use and adaptation of educational resources, promoting free and inclusive access to learning opportunities. Open Educational Resources (OER) offer significant benefits, such as reducing financial burdens on students and institutions, fostering equitable access to quality educational materials, and allowing educators to customize content to meet diverse teaching needs. Platforms like OER Commons and MERLOT facilitate resource sharing and collaborative teaching, enabling educators and learners to engage in content creation and adaptation for more personalized learning experiences. Despite these advantages, integrating OER into teaching comes with challenges, such as ensuring content quality aligns with educational standards and maintaining the sustainability of resources through regular updates. Effective practices include adapting OER to specific curriculum goals and leveraging accessible design to promote inclusivity. The future of OER is promising, with advancements in AI enabling personalized learning, increased policy support from governments and institutions, and growing international collaborations driving the development and impact of open educational resources worldwide.



The session ended with vote of thanks to the resource person, dignitaries and the participants by Dr. Puspal Mukherjee, Assistant Professor of Chemistry, NSOU.

Day-6: 18-11-2024 (7.00– 9.00PM)

Dr. Sumit Prasad, Assistant Professor of Management Studies, UOU briefed the session and introduced the resource person Dr. Kaushal Kr Bhagat, Vice Chairman, CLVTS, IIT-Kharagpur to the FDP audience. The coordinator of this session is Dr. Sumit Prasad, Assistant Professor of Management Studies, UOU.

Dr. Kaushal Kr Bhagat, Vice Chairman, CLVTS, IIT-Kharagpur on started with Interactive Whiteboards, Educational Apps and Software. Dr Bhagat told that Simulation & Virtual Reality Augmented Reality (AR) and Virtual Reality (VR) are transformative technologies with unique functionalities and applications. Location-based AR, which relies on GPS, digital compass, camera, and accelerometer, enables users to interact with digital content in specific physical locations, such as in navigation and geolocation-based games. Marker-based AR, on the other hand, utilizes specific physical markers like QR codes to trigger digital overlays, making it ideal for educational tools and marketing campaigns. Unlike VR, AR is more portable and cost-effective, as it can function seamlessly on smartphones and tablets, enhancing the real-world environment with minimal hardware requirements. VR, particularly in its fully immersive form, creates a completely artificial environment that isolates the user from the physical world, achieved through VR headsets and advanced sensory devices. This makes it ideal for gaming, virtual exploration, and training simulations. The key distinction between semi-immersive and fully immersive VR lies in the level of isolation—fully immersive VR provides total detachment, while semi-immersive systems, like flight simulators, allow some connection to the physical world. These technologies serve diverse purposes, with AR excelling in real-world augmentation and VR leading in immersive experiences.

The session ended with vote of thanks to the resource person, dignitaries and the participants by Dr. Sumit Prasad, Assistant Professor of Management Studies, UOU.

Day-7 (Valedictory Session): 19-11-2024 (7.00– 9.00PM)

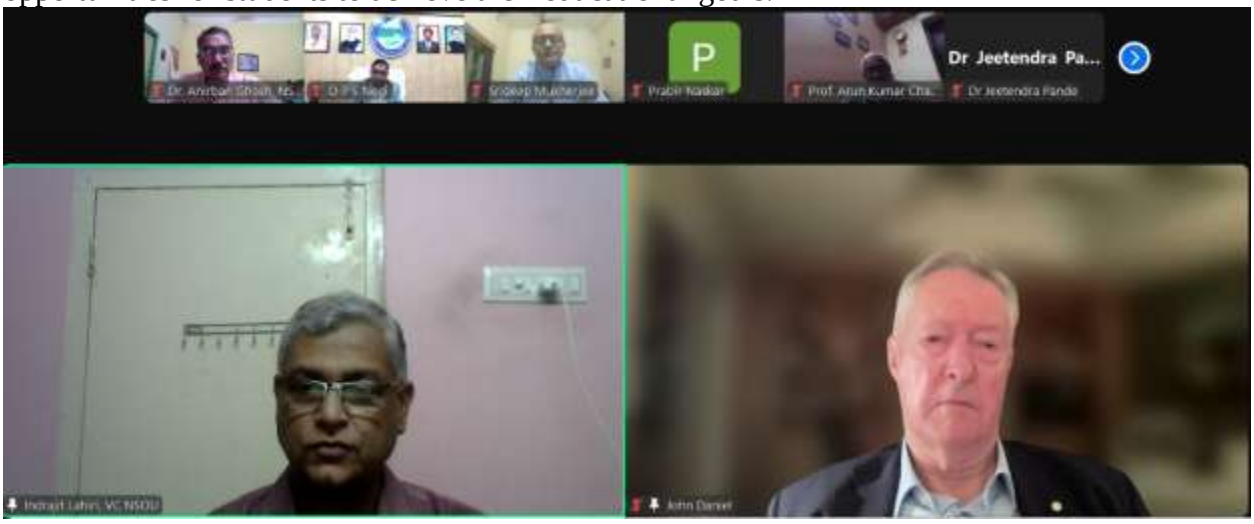
The welcome address was delivered by Professor Jeetendra Pandey, Professor, UOU, marking the commencement of Valedictory Session. The address extended a warm welcome to esteemed guest/keynote speakers, dignitaries, guests and the participants acknowledging contribution to the FDP. The purpose and objectives of the FDP were briefly outlined, highlighting its significance and expected outcomes. The address also expressed gratitude to entire team of Institutions Innovation Council (IIC) and all faculty members of Netaji Subhas Open University (NSOU) and Uttarakhand Open University (UOU) and also all faculty members who are the organizing committee members for their cooperation and assistance in making the event a success, setting the tone for a productive and enriching experience for all attendees.

Prof. Anirban Ghosh, President, IIC, Head of the Department of Commerce and Management, Director SPS, SVS & CIQA and Chair Person of FDP-2024 mentioned in his address that around 60 participants participated in the Faculty Development Programme (FDP). Apart from inaugural sessions there were six technical sessions. Last but not the least valedictory address was delivered by Sir John Daniel, Former President & CEO, COL. Prof. Ghosh, profusely thanked to

both the Universities authorities, all School Directors, Registrars, both Joint Registrars and entire academic community and administrative personnel. He also thanked his entire team of Institution's Innovation Council (IIC) and all faculty members of Netaji Subhas Open University (NSOU) and Uttarakhand Open University (UOU) and also all faculty members who are the organizing committee members. They all whole heartedly put their fullest efforts to make the program success. Last but not the least all supporting staff worked hard for last few days.

Professor Ritu Mathur Mitra, Professor, Department of History, FDP Jt. Coordinator, NSOU moderated the feedback session which provided valuable insights into participants' perceptions of the session. The overall feedback was positive, with participants appreciating the informative and interactive session.

Valedictory address was delivered by Sir John Daniel, Former President & CEO, COL, who is having vast experience in distance learning since long time. In spite of his extremely busy schedule, he came and delivered his spectacular motivational valedictory address. He spoke about **"Open University: Open to What?** extent that gave an insight to the open education system. According to Sir John an Open University is an institution that provides flexible and accessible education to students, often through distance learning or online platforms. To what extent is an Open University truly "open"? While it aims to provide education to anyone, anywhere, regardless of geographical location, socio-economic background, or prior educational experience, limitations and challenges exist, such as technological barriers, language barriers, and inadequate support services. Nevertheless, Open Universities strive to be truly "open" by offering accessible, affordable, inclusive, flexible, and recognized education, providing opportunities for students to achieve their educational goals.



Special Address was given by Professor O. P. Negi, Hon'ble Vice Chancellor, UOU. Prof. Negi expressed his sincere appreciation to all participants whose presence made the program interactive. He expressed his sincere gratitude to all dignitaries who had delivered their lectures in spite of their extremely busy schedule.
Presidential Address was delivered by Prof. Indrajit Lahiri, Hon'ble Vice-Chancellor, NSOU. Prof. Lahiri while summing up the program stressed on Strategies for Developing Outcome Based Curriculum & Utilizing Digital Tools in Education which is very important in the society.

The forum also invited feedback from the participants. Some of them shared enriching experiences not only in terms of quality sessions but also the entire framework, management and coordination of the one-week long FDP.

Vote of thanks was proposed by Prof. Ashutosh Kumar Bhatt, FDP Coordinator UOU and Dr. Srideep Mukherjee, Associate Professor of English and Convener, IIC, NSOU was the session moderator.

Activities: The FDP was supported by the LMS for asynchronous mode of interaction. All the academic resources and recordings of live lecture sessions were made available in the LMS. Each week the self-assessment questions (SAQs) and activities were uploaded on each day immediately after the live sessions to brush up the knowledge of the participants.
LMS- https://elearning.uou.ac.in/course/view.php?id=285

Assessment: The completion certificates were issued to those participants who successfully completed the activities and scored 70% marks in the final assessment of CBT type. 52 participants out of 60, completed the FDP and downloaded the completion certificate upon submitting online feedback.

The FDP was a resounding success and demonstrated to be the screeching need of the hour.

Report prepared by:
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Dr. Sudarshan Roy, Assistant Professor of Commerce, NSOU & Member, IIC