

FACULTY DEVELOPMENT PROGRAM (FDP)

Bridging Traditions: Integrating Indigenous Knowledge into Higher Education Curriculum

A six-day Faculty Development Programme on ‘Bridging Traditions: Integrating Indigenous Knowledge into Higher Education Curriculum’ was organized by the Association of Indian Universities—Academic and Administrative Development Centre, USTM from March 18-23, 2024, through online mode. Faculty members from diverse regions across India, including Indore, Maharashtra, Kerala, Madhya Pradesh, and various parts of Assam participated in the event, alongside faculty members from the host university. The Inaugural Session was graced by the presence of various dignitaries including Prof. Pralhad R Joshi, Vice Chancellor, Kumar Bhaskar Varma Sanskrit and Ancient Studies University, Nalbari, Assam; The President, AIU, Prof G D Sharma, Vice Chancellor, USTM; Dr. Pankaj Mittal, Secretary General, AIU; Dr. Amarendra Pani, Joint Director and Director (I/c) Research, Convener, AADC; and Prof. Amit Choudhury, Dean School of Technology and Management. The expertise of resource persons enriched the discussions, providing insights into incorporating indigenous knowledge into higher education curriculum. The discussions ranged from historical contexts to practical strategies for curriculum integration, addressing the importance of NEP 2020 and guidelines for incorporating Indigenous Knowledge Systems (IKS) into higher education.

Prof. Pralhad R Joshi, Vice Chancellor, Kumar Bhaskar Varma Sanskrit and Ancient Studies University, Nalbari, Assam discussed the importance of integrating the Indian Knowledge system into modern education curricula, emphasizing the need for extensive research across all fields due to the lack of proper documentation in ancient times. Much of the knowledge was preserved in manuscripts written in various languages, necessitating the learning of these languages and the integration of the mission to convert manuscript knowledge into the modern education system. The significance of Project NAMAMI, initiated by the Ministry of Tourism and Culture, Government of India in February 2003, was highlighted. This unique project aimed to unearth and preserve India's vast manuscript wealth, estimated to be around ten million manuscripts, covering a wide range of themes, languages, scripts, calligraphies, and illustrations.

Prof. S R Joshi, Professor Department of Biotechnology & Bioinformatics, North Eastern Hill University, Shillong discussed the distinction between knowledge acquired through formal education versus experiential learning, emphasizing that knowledge could be gained through both

methods. A humorous example of scientists trying to measure a 'human quotient' based on a banana peel experiment illustrated this point. Moving on, the significance of documenting traditional knowledge and heritage, especially in cultures like India where rich knowledge systems exist but often go undocumented, was highlighted. The importance of validating traditional practices scientifically to dispel superstitions and recognize their value was mentioned. The discussion underscored the importance of tangible and intangible heritage, emphasizing that documented knowledge became accessible to all, while undocumented knowledge remained confined to oral traditions. Examples from history, such as the heritage cities like Varanasi and Nalanda, illustrated the value of documentation in preserving cultural knowledge. The discussion extended to ancient herbs and oral traditions like the Rig Veda, showing how traditional knowledge had shaped various aspects of society over millennia. The Indian knowledge system and its significance in the context of the National Education Policy (NEP)- 2020 were delved into. The need to incorporate indigenous knowledge into formal education to instill pride in Indian heritage among learners was emphasized. The NEP's focus on integrating indigenous knowledge into the education system was seen as a means to preserve and enhance traditional knowledge for future generations. The importance of research and accurate incorporation of indigenous knowledge to inspire and inform education in India was stressed. Lastly, the narrative touched on the social and cultural aspects of indigenous knowledge, highlighting its role in shaping relationships, behaviors, and societal norms. The need for cultural assimilation, respect for ancestors, and other traditional values to foster unity and growth in society was underscored.

Prof. Rani Sadasiva Murty, Vice Chancellor of Sri Venkateswara Vedic University, Andhra Pradesh highlighted the different means of the Indian Knowledge System like Perception, Influence, Verbal testimony, and the requisites of Science like observation, hypothesis, experimentation, and drawing principles through deduction or induction. A mission of integrating ancient scientific research with modern sciences was emphasized, in collaboration with IITs, ISERs, and other National Scientific institutions. The discussion on Vedic Literature started with the term '*Kulapati*' being introduced as an intriguing concept used in ancient times to denote the roles of Vice Chancellor and Chancellor in one. These roles weren't separate entities but were encapsulated in the term '*Kulapati*'. Individuals like *Rishinam Dasasahasram* held this position, overseeing educational institutions where students were revered as 'Rishis' due to their pursuit of knowledge for its intrinsic value rather than for immediate practical gain. Each ashram typically

accommodated 10,000 students, supported by 1,000 teachers, maintaining a ratio of 10 students per teacher as prescribed by ancient texts. Education covered various domains, with ‘*Shastram*’ encompassing what we now identify as science. The Ancient Indian knowledge systems recognized three means of acquiring knowledge: direct perception (*Prajaksham*), inference (*Anumanam*), and textual testimony (*Shabdha*). The Vedas were complemented by *Upavedas*, which included fields such as Ayurveda, Dhanurveda, Gandharva Veda, and Artha Veda. Ayurveda, for instance, wasn't solely focused on treating diseases but also on promoting longevity. Dhanurveda covered military sciences, Gandharva Veda included finance, and Artha Veda encompassed humanities and economics. Throughout the discussion, parallels between ancient knowledge systems and modern science were highlighted, underscoring the timeless relevance and depth of ancient Indian wisdom.

Dr. Upinder Dhar, Vice Chancellor, Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore discussed the Indian understanding gadget, as mentioned within the National Education Policy-2020, representing not just tradition but a way of understanding transfer. It encompassed the rich history of ancient Indian knowledge found in texts like the Vedas, Upanishads, and Up Vedas. The NEP- 2020 emphasized integrating this understanding into modern education to address societal challenges. This integration wasn't about blindly accepting ancient teachings but involved rigorous research to understand. It was about recognizing the systematic nature of Indian understanding systems, which included *Dhyana*, *Vijnana*, and *Jeevan Darshan*, developed through experience, observation, and analysis. Efforts were underway to establish research fellowships, create databases, and promote interdisciplinary research organizations to explore the vast knowledge preserved in Indian texts. This included traditional subjects like mathematics, astronomy, medicine, and also tribal knowledge and indigenous practices. Moreover, the policy emphasized introducing Indian understanding systems into school and higher education curricula. This involved mapping traditional subjects with modern disciplines, providing engaging courses, and offering firsthand experiences through student excursions to ancient sites. The Ministry of Education established an Innovative Cell for Indian Knowledge Systems at AICTE, New Delhi to promote interdisciplinary research, preservation, and dissemination of Indian understanding systems. The goals included facilitating further research, coordinating interdisciplinary work, and integrating Indian understanding systems into mainstream education. Efforts were made to identify tourist destinations with historical and cultural significance, promote student tours for educational

purposes, and establish Indian understanding system centers for research and education. More than 8000 higher education institutions adopted Indian understanding systems into their curriculum, and digitization efforts preserved 1.5 lakh books on the subject. Overall, NEP 2020 sought to harness the vast repository of ancient Indian knowledge to address modern challenges and preserve the heritage of learning systems for future generations

Prof. Saroj Sharma, Chairperson, National Institute for Open Schooling, Noida, Uttar Pradesh discussed the Indian festivals. She discussed that in past eras, Indian festivals, rituals, and traditions were deeply intertwined with the symbiotic relationship between nature and humanity. Practices such as worshipping the sun, rivers, and trees had scientific explanations rooted in seasonal changes, fostering a harmonious coexistence with the environment. Indian philosophy, characterized by diverse schools of thought such as Nyaya, Vaisheshika, Mimamsa, Vedanta, Sankhya, and Yoga, delved into logic, metaphysics, ethics, and spiritual practices. These philosophies provided a comprehensive understanding of life and the universe. Ancient Indian knowledge systems comprised a vast array of disciplines, from the Vedas, Upanishads, and Puranas to texts on astronomy, mathematics, medicine, and economics. This rich repository of wisdom was passed down through generations. Despite the absence of modern technology, ancient Indian scholars made significant strides in fields such as astronomy, mathematics, medicine, and physical sciences. Ancient Indians made pioneering contributions to mathematics, including the invention of zero, numerical notations, algebra, geometry, and trigonometry. In summary, ancient India's intellectual heritage encompassed a diverse range of disciplines and reflected a profound reverence for knowledge, innovation, and harmony with nature. These timeless insights continue to inspire and enrich contemporary understanding across various fields of study.

Prof. Manabendra Dutta Choudhury, Department of Life Science and Bioinformatics, Assam University, Silchar primarily focused on the Indian Knowledge System concerning traditional medicine in relation to the question of sustainable development. The speaker talked about recognized traditional knowledge and unrecognized traditional knowledge ingrained in the cultural heritage of ethnic communities. He emphasized that the key to sustainable development based on traditional knowledge lies in translating intuitive and holistic knowledge into reductionist terms. Since Intellectual Property Rights (IPR) cannot adequately protect traditional knowledge, there was a need for an alternative legal framework. The necessity of National Biodiversity Authorities

(NBAs) and State Biodiversity Boards (SBBs) to consult with Biodiversity Management Committees (BMCs) regarding the use of biological resources and associated knowledge within their jurisdiction was highlighted. Ethical considerations were discussed regarding the acknowledgment of traditional knowledge in medicine, emphasizing the importance of giving due respect and credit to the practitioners. It was asserted that traditional knowledge is a valuable asset that needs to be transformed into a global resource through scientific intervention, by safeguarding it within a legal and technical framework for sustainable development.

Prof. Ajay Singh Rathore, Vice Chancellor, Shyam University, Jaipur, Rajasthan discussed the concept of the Great Tradition, encompassing various aspects of society, including festivals, ancient civilizations, and religious texts. It discussed the challenges modern society faced, such as changes in traditional practices and the impact of technology on cultural norms. There was a concern about the decline in traditional values and its effect on spiritual education and mental health, leading to suicides among children. In 2020, a New Education Policy was introduced to address these conflicts and promote interdisciplinary education and skill development. The passage concluded by emphasizing the importance of interdisciplinary knowledge in adapting to changing environments and circumstances, particularly in India's pursuit of knowledge and economic growth through startups and employment opportunities. Traditionally, a student might have started their day by touching their parents' feet, but in modern times, the first thing many did was check their mobile phones. This shift indicated a significant change in spiritual education influenced by technology. There was a noticeable transformation in how traditions were perceived, particularly in the respect shown towards gurus. This shift contributed to increased stress among children, even leading to tragic instances of suicide. The introduction of the 2020 education policy aimed to mitigate conflicts within traditions and foster interdisciplinary and multidisciplinary education based on students' interests. The emphasis on interdisciplinary knowledge underscored its immense value and utility in navigating changing circumstances and environments.

Prof. Rajendra Prasad Das, Vice Chancellor, Krishna Kanta Handiqui State Open University, Guwahati, Assam initiated his discussion with an exploration of the ancient educational practices where each teacher would impart relevant knowledge every day. These educators were regarded not merely as servants but as sevaks, guiding students not only in academic subjects but also in spiritual and moral development, emphasizing respect for elders and fostering holistic growth. It

was emphasized that alongside curriculum development, greater attention should be directed towards the pedagogical methods employed to deliver the curriculum. Institutions were urged to design courses or modules integrating Indigenous perspectives across diverse disciplines such as history, anthropology, environmental studies, literature, and social sciences. These educational endeavors were to highlight Indigenous ways of understanding, sustainable practices, traditional ecological knowledge, and cultural resilience. In order to effectively implement these initiatives, universities were encouraged to provide faculty members with comprehensive training and resources to integrate Indigenous knowledge into their teaching methodologies. Furthermore, it was proposed that teachers should undergo proper training, equipped with the finest pedagogical tools, thereby benefiting the college or university while facilitating the transmission of the educational spirit from faculty to students

The President, AIU, Prof G D Sharma, Vice Chancellor, University of Science & Technology Meghalaya began his discussion with the existence of the Gurukul system in ancient times, where each Gurukul specialized based on available resources, utilizing them for the benefit of society. Ancient Indian education was centered on holistic development, encompassing not only cognitive but also moral, emotional, and spiritual growth. These Gurukuls played a pivotal role in identifying, narrating, discussing, and resolving societal issues. Matters that couldn't be resolved at the Gurukuls were often taken up by renowned centers of learning such as Nalanda and Taxila. It was noted that contemporary society is increasingly transitioning towards a modern way of life, marked by uniformity and a predominant focus on market orientation, thereby veering away from traditional knowledge systems. The speaker highlighted the presence of principles akin to Bloom's Taxonomy in ancient educational practices. In this regard, it was observed that ancient Indian education encompassed various stages of learning, commencing with the memorization of sacred texts and philosophical tenets. Understanding was fostered through a deep exploration of meanings and implications, while application was demonstrated through debates and practical exercises. Analytical skills were sharpened through the study of scriptures, and the evaluation involved discerning between different viewpoints. Moreover, creativity was actively encouraged through intellectual discourse and the generation of original insights within traditional frameworks. The integration of Indigenous knowledge into higher education curriculum was emphasized as not only enriching the educational experience for all students but also as a means to contribute to the revitalization and

preservation of Indigenous cultures, languages, and knowledge systems. This process was deemed essential for fostering more equitable, sustainable, and culturally responsive educational systems.

The Valedictory Function featured a report by Dr. Monalisa B Deka followed by Valedictory Address by Prof. Rajendra Prasad Das, Vice Chancellor, Krishna Kanta Handiqui State Open University, Guwahati, Assam who attended as the Chief Guest. The President, AIU Prof. G D Sharma, Secretary General, AIU Dr. Pankaj Mittal, Joint Director, Dr. Amarendra Pani, and Dr. R K Sharma addressed the participants. The event concluded with a collective commitment to collaborate in bridging traditions and creating a more inclusive future, aligning with the vision of '*Ek Bharat Shresth Bharat*'.