Concept

It is the urgent need of the hour to create a paradigm shift in the value consciousness of individuals who will inherit unfathomable and unprecedented changes, as members of the human society living in future. India as a nation has to be ready to perceive these changes pragmatically, equipped with scientific temperament and elevated human values of universalism, equity and holism. The priority is not just to expedite and create instruments and institutions that exploit resources of the planet to build fragmented empires with technological prowess. The real challenge is to create titans for humanity, armored with possibilities that transcend human limitations, who can hold the baton to leverage and leadinstruments of technology.

We have to accept the growing dominance of technologically augmented consciousness in contemporary society, education under this scenario cannot be limited to accumulation of information alone. In claiming its rightful status as the fundamental institution underlying the core of socialization, as an agency of social change, it has to transcend premises, from mere information accumulation to facilitator for transformation of humanity.The highly developed technological intervention through ICT has ensured that every kind of information is brought to the palm of our hand. But, the role of education and educators have to be re-allocated to the realm of augmented intelligence, with capacity of effective decision making, so that a haphazard body of information can be leveraged and implemented to meet the highest human ideals and values towards service and welfare.

NEP 2020 envisions the creation of a nation of enlightened citizens, who are also effective stakeholders in the making of a technologically augmented global society.The methodology adopted is impressive interms of scale of reach and span of time. Participatory, democratic, and inclusive it made an effort to integrate collective consciousness of a society seeking avenues to leverage technology and create the best choices for humanity.

Evidently, NEP 2020 has given significant emphasis to technology enabled education, to ensure flexibility,choice, quality and decision making capacity for students in higher education, at the same time emphasizedcreativity, nurturing, grooming through experiential learning and participatory learning in primary and middle school. This is an effort to lay the foundation of a conducive environment from the younger age so that young adults in higher education can be empowered withthe capacity to make the right choice.

We have also seen that the pragmatic utility of ODL has proved to be an extremely innovative means of delivering education under the prevailing pandemic situation. It is evident that ODL has potentials to address inclusion and universal education, and could be leveraged optimally by conventional education.Unfortunately, before the pandemic, the high potential of ODL went largely unexplored due to the lack of merit leveling between conventional and ODL system.Moreover infrastructural deficit in ICT and connectivity had been a serious challenge for optimum utilization of ODL in pre NEP era. By integrating, open and choice based learning through E-content delivery, online classes in the conventional mode of education, NEP has proved to be contemporary and relevant in terms of applicability, pragmatism and delivery.

The Webinar is focused on reflecting on challenges to inclusive and universal education that lie embedded in the actual implementation of technology enabled education system. For example widespread internet connectivity disruption, cannot only create digital divide between rural urban spaces,between economic classes, but also inaccessibility in general.Thus access to logistics and infrastructural development of ICT for technology augmented education needs to be grounded in social welfare objective of the national policy mandate.(ODL) open and distance learning which could be a viable path for inclusive and universal education under these circumstances very rarely meet the optimum possibility of goal actualization.We urgently need to strengthen ICT and make it financially viableso it can contribute towards inclusion of marginalized communities and social categories like youth, women , physically challenged, SC/ST etc.

Questions for discussion

1. Technology augmented education is the new paradigm shift appropriately raised by the NEP2020. What are the challenges to its actualization, implementation, considering the prevailing scenario of infrastructure deficit in India?

2. What possible strategies could be adopted to strengthen ICT, and other infrastructural gaps that contribute to digital divide?

3. How can we strengthen technology augmented education to contribute to NEP goals of access, equity, quality, affordability?

4. Can premier institutions for technological education adopt open and distance learning through inter-institutional network, resource sharing and bridge the gap between excellence, inclusion and universalization,at the same time upholding values of flexibility, choice, autonomy for students in higher education.

5. Explore possibility of integrating open and distance learning with the conventional mode of education, to strengthen choice, flexibility, inclusion, quality and affordability.

6. Discuss strategies for upgrading quality leveling of ODL with conventional education.

7. Role of institutional networking, resource sharing in addressing IT infrastructural growth in India.

8. How can technology enabled education contribute to dissemination of science education, research and development of pure science for the nation and create a knowledge society with scientific temperament.

9. Possibilities of upgrading and supporting local technology,indigenous technology through technology enable education, for grass-root development and entrepreneurship for rural development.
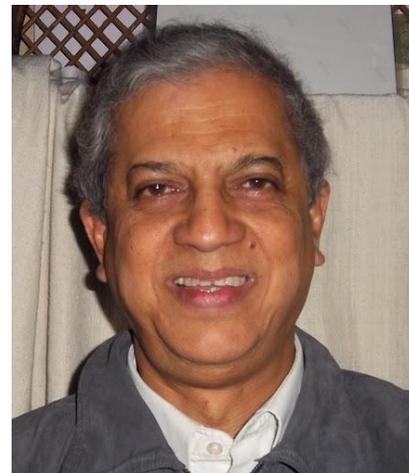
Panelists

Prof. Anil Dattatraya Sahasrabudhe, Professor of Mechanical Engineering at Indian Institute of Technology (IIT), Guwahati joined All India Council for Technical Education (AICTE) as Chairman on 17th July 2015. Prof. Anil D. Sahasrabudhe obtained Master's and Doctoral (with UGC Fellowship) degrees from Indian Institute of Science (IISc), Bangalore in 1982 and 1989 respectively An ardent Institution builder and leader , He is Chairman, Basic Scientific Research (BSR), Empowered Committee of UGC & SWAYAM Board. He is Fellow of ISTE, IET, Institution of Engineers (IE), INAE.He has been bestowed with several awards which include "Maha-Intrapreneur Award-2011" of Praj Industries, Jeevan Gaurav Puraskar (Life Time Achievement Award) from MIT World Peace University, Pune in 2019, Mahatma Gandhi Leadership award from Indian Achievers Forum and CSR Times (2019). As an academician and researcher in NERIST and IIT Guwahati, and as an administrator in the capacity of Director, CoEP, he has taken up several new

initiatives for Academic, Curricular & Co-curricular activities, Entrepreneurship, Research and Good Governance.

Professor Gautam Barua, IT specialist , was faculty in Computer Science and Engineering for 38 years (13 years at IIT Kanpur, 18 years at IITG, and 7 at IIITG Director IIIT Guwahati (IIITG). An eminent institution builder, he was the mentor Director and later became Director IIIT Guwahati. Before that he had ten years of experience as Director IITG, and actively participated in building IITG in the formative years (1995-1998) when the Institute was being established. He set up IIT Patna as the Mentor Director (in 2008-09). He is an alumni of B.Tech, M.Tech, IIT Bombay : 1976, 1978 and a Ph.D, from University of California, Santa Barbara, USA: 1981Faculty IIT Kanpur: 1982 – 1995. His Research interest and accolades cover areas of Operating Systems, File Systems, NVMSystems, Virtualisation, Networks, Routing, Software Defined Networks, Internet PricingDabase Management Systems, Concurrency Control, Memory DBMS Systems. His leadership qualities in technology management and innovation put IITGuwahati in the global pedestal in the shortest record time.

Dr. Shiva Kumar G.N., presently an Academic Administrator associated with IGNOU at Regional Centre Kolkata, he has been an academic administrator for the past fifteen year and contributed in a small way to promote higher Education through Open and distance learning. He completed his PH.D from JNU, New Delhi and further completed Post Doctorate from the University of Berlin, Germany. As an Academic he has attended as well as presented innumerable papers in National Seminars pan India on a variety of topics of International Relations like disarmament, peace and conflicts in Asia and South Asian Countries. Member in different academic bodies like the Academic Council of NetajiSubhas Open University, West Bengal, State Advisory Committee on Open Distance Learning, Govt. of Karnataka, Accreditation Committee on Open and Distance learning Institutions.

Prof. Virginius Xaxa, Professor of Eminence at Tezpur University, began his academic career in North Eastern Hill University (NEHU) where he taught Sociology from 1978- 1990. He joined Delhi School of Economics in 1990 and taught there till 2011. He joined the Tata Institute of Social Sciences in 2011 to head the Guwahati Campus and completed his term in September 2016.Prof Xaxa was awarded the Ph.D. for his thesis on Agrarian Social Structure and Class

Relations in North Bengal at IIT, Kanpur (1978). He held post-doctoral fellowship under Indo-French Cultural Exchange Programme at Maison des Sciences de l'Homme, Paris (1982). He was a Commonwealth Academic Staff Fellow at School of Oriental and African Studies, University of London (1988) and a Fulbright Fellow at University of California Santa Cruz, USA (1998). He held the Rajiv Gandhi Chair in Contemporary Studies at North-Eastern Hill University, Shillong from 2006-2008.

Prof Xaxa works in collaboration with students and colleagues in attempting to understand sociological concerns of plantation labourers, tribal communities, agrarian structure and development, social exclusion. He has a number of acclaimed published books to his credit He is also on the editorial advisory board of reputed International Journals such as Asian Ethnicity, Social Change, History and Sociology of South Asia and Contribution to Indian Sociology, Sociological Bulletin.

Besides contributions to research and teaching, Prof Xaxa has been a member of the various committees of the Govt. of India and governing boards and advisory committees of various research institutes, universities and NGOs. Prof. Xaxa has been a member of National Advisory Council of the Government of India and the Chairperson of High Level Committee to study educational, health and economic status of the tribal communities in India.

Dr. Samir Kumar Das is Professor of Political Science at the University of Calcutta, Kolkata. Previously the Vice-Chancellor of the University of North Bengal, and a Post-Doctoral Fellow (2005) of the Social Science Research Council (South Asia Program), he is the Coordinator of the University Grants Commission-Departmental Research Support (UGC-DRS) Programme (Phase II) on 'Democratic Governance: Comparative Perspectives'. He served as a Visiting Fellow at the European Academy, Bolzano, Italy (2008), an Adjunct Professor of Government at the Edmund A. Walsh School of Foreign Service, Georgetown University (2014) and a Visiting Professor of the North East India Studies Programme at Jawaharlal Nehru University (JNU), New Delhi in 2015 and at the Universite 13 Sorbonne-Paris-Cite in 2016 among many of his assignments. He specializes in and writes on issues of ethnicity, identity, security, migration, rights and justice and has contributed over 190 research papers to highly esteemed national and international journals and edited volumes. Besides, he has been a regular reviewer of some of the top journals, publishing houses and research bodies including Minority Rights International (London) and European Research
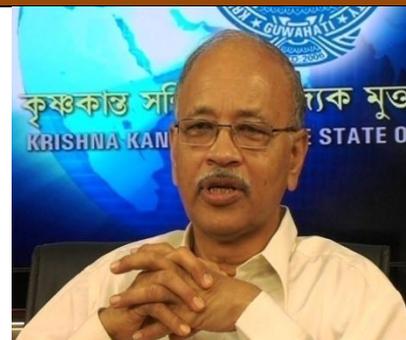
Council (Brussels) etc	

Saurabh Basu is currently Professor of Physics at the department of physics in IIT Guwahati. He is a PhD from IIT K in 1999. Post docs at TIFR, Mumbai and Queens Univ. Canada between 1999 and 2002. Joined IITG in 2003 as Asst. Prof. He was ExHoD, Physics (2012-2015), Ex Dean, Outreach (2016-2019) , Ex Director Public and Staff Grievances (2015), Ex Director IIIT Bhagalpur 2018-2019 and Member of BoG and Finance committee, NIT Arunachal. Beside his administrative prowess in Institution building, his disciplinary expertise is in Theoretical Physics. He has over 80 research publications in peer reviewed international journals. He is Visiting faculty/Associate at ICTP (2005) Univ. Of Frankfurt (2007), Bilkent Univ. (2011,2020).

Prof. Srinath Baruah, former Professor, Dept. of Economics, Gauhati University, was the founder Vice-Chancellor of KKSOU University. Krishna KantaHandiqui State Open University or KKHSOU, established under the provision of the KKHSOU, Act' 2005 enacted by the Govt. of Assam & published in the Assam Gazette (extraordinary) dt 29/9/05 has been recognized by the Former Distance Education Council, New Delhi (now DEB,UGC) It is the fourteenth of its kind along with IGNOU and the only state Open University in the whole of NE India. The headquarters of the University is located at Patgaon,Rani,Guwahati.The University was established with the purpose of promoting education to reach the unreached through the Open and Distance Learning System, with the motto of the University 'Education Beyond Barriers' of age, academic background and geographical boundaries.Under his able leadership KKSOU showed galloping Gross enrollment ratio and an impressive trend towards inclusive grassroot education in the infrastructure deficit zones of North East India. His initiative to provide ODL Study materials in local language was very innovative.
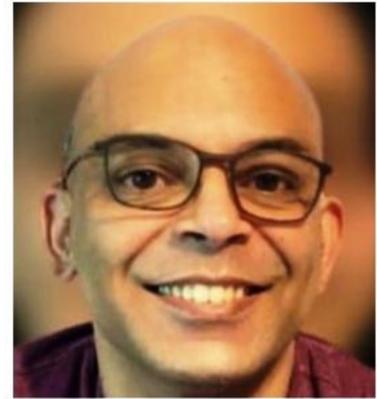

Dr. P. K Joshi is a Faculty, Homi Bhabha Centre for Science Education,President of International Junior Science Olympiad Vice-Chairman Bombay Association for Science Education, M.Sc IIT-Bombay 1988 Phd : Louisiana State University, 1995 (Nuclear Physics) . He is Member Board of Governors, IIT Bombay and Member of Management council, SNDT Women's University.Academic coordinator of Junior Science Olympiad and led the Indian team from 2007 to 2018.

Mr. Rajorshi Datta-
Technology & business leader with over 2 decades experience. Currently, Global head IBM Systems for Citigroup Integrated Account team, leading complex global 8 figure transactions, supported by global teams across IBM & Citi spanning functions from Sales, Marketing, CIO staff, Procurement and Lines of Business (over 100 personnel). Advisor to Chappaqua Central School District on communications and technology. B. Tech from IIT Kanpur& MBA from UC Berkeley.

Prof. K.R. Srivathsan is currently Senior Fellow at the Odisha Open State University. He is alsoAdviser to Jharkhand Government for the Modernization of the State's Higher Educationthrough Inter University collaboration over the Jharkhand Education Grid. He is also Professor(Retd.), IIT Kanpur. Over his academic career spanning more than 45 years, he has contributedin many ways of leadership and innovations to several academic, R&D, national and regional programs of development. He was part of the National Telematics Program ofMHRD which modernized the Telecom Education in the entire country. Concurrently, hementored, designed and commissioned the first CAD/CAM supporting LAN in DRDO at its Aeronautical Development Agency (ADA), which was used by the ADA team of scientists andengineers for developing the Light Combat Aircraft (now Tejas). He initiated and contributed
significantly to the Power Distribution Automation project under the Technology Development. He conceptualised and cordinated the Kerala Education Grid, the KISSAN-Kerala and the Trivandrum City Police Portalfor Citizen's Interaction. All these won several e-governance and Digital Empowerment awards,including three Manthan Awards for Digital Empowerment. He, with the faculty of IIITM-K, inassociation with the Kerala Agricultural University and support from the Govt. Of Kerala guidedestablishing the KISSAN-Kerala, and re-designing of e-Krishi services for farmers trading of theirproduce. Under his mentorship, IIITM-K assisted Kerala Agricultural University in its efforts for aVirtual University for Agricultural Trade. During 2008-2011 he served as Pro Vice Chancellor of the Indira Gandhi National OpenUniversity (IGNOU) in Delhi. There, he initiated the 'Vedyadhaaraa' model of Wiki based support for Open and Distance Learning Courses. He initiated the SarvaSikshaAbhiyanTeachers Wiki that was used for several teachers training programs.He organized the very first NPTEL workshop at the KeralaState level in Jan. 2007 at Thiruvananthapuram wherein almost 160 educationists – Principals,Directors, Deans and

academicians participated. He is currently working to conceptualize thenext generation education guided by the key principles for quality, inclusion, and systems oflearner and learning centric education. Based on these, he is proposing a national frameworkfor enhanced quality of higher education using NPTEL integrated with Virtual Labs and OpenEducation Resources set over emerging cloud, mobile, digital media and broadbandtechnologies and augmented by local centres for assessment, all leading to future modes oflearner centric education.

Dr. Sujata Dutta Hazarika is a sociologist with more than fifteen years of experience in research in areas of sustainability and public policy, governance, sustainable development, education and natural resource management. Founder faculty of Sociology in the Department of Humanities and Social Sciences, IIT Guwahati, she was awarded the Fulbright Senior Research Fellowship for the year 2010-2011 and hosted by Institute for the Study of Societal Issues (ISSI), University of California Berkeley. In 2009, she initiated the North East Centre For Research and Development as the overall in charge of the national centre established by Indira Gandhi National Open University (IGNOU) to facilitate public policy research in North East India .It envisioned to create a think-tank for the region to manage an authentic data base for its vast, diverse and unexplored natural and bio-cultural resources that could facilitate and Impact Public policy and Development planning in North East India. She is the founder of GISDP(Global Initiative For Sustainable Development and Planning), as a North South think tank initiative to redefine economy and business through sustainable public policy grounded on innovation, inclusion, access, equity, environment . Currently she is Deputy Director at IGNOU Kolkata Regional Centre, her services dedicated and aligned to the broader mandate of IGNOU, democratize education for the creation of an inclusive knowledge based society through technology mediated open and distance learning. Her recent books, New Age Hunger Games: Warring Farmers and the Violence of Sustenance Bookwell Publishers New Delhi and First author book Sustainability, Conflict and the Global systemic Crisis : Assam's Forgotten Nomads BookwellPublisjhers New Delhi has been widely circulated and discussed.

Panels

1. **Technology enabled education : Exploring the next level of ICT for local- global connectivity.**

   Prof. Anil D. Sahasrabudhe, Chairman AICTE.
   Prof Gautam Baruah, Director IIIT Guwahati.
   Mr Rajorshi Dutta, Global Head. IBM USA.

2. **NEP 2020 : leveraging technology for transforming education in India**

   Prof K.R. Srivathsan, Former Professor IIT Kanpur and Visiting Fellow Odisha State Open University.

   Prof Srinath Baruah, Former Vice Chancellor KKSOU, Guwahati.

3. **Social technology for social welfare : Towards equity, access and quality**

   Prof Virginius Xaxa,   Former Director TISS Guwahati and Professor EminenceTezpur University.

   Prof Samir Das, Former Vice Chancellor North Bengal University and Dean Calcutta University.

4. **Popularizing Science: in the path of creating a knowledge society with scientific temperament**

   Prof Saurabh Basu, Department of Physics IITGuwahati.
   Dr. P. K Joshi, Faculty, Homi Bhabha Centre for Science Education, Mumbai.

Schedule

12.00 PM -12.10 PM	Introduction and Concept of the WEBINAR - Dr.Sujata Dutta Hazarika, Deputy Director, IGNOU
12.10 PM - 12.25 PM	Welcome address and perspectives on NEP 2020 - Dr. Shiva Kumar G. N. Regional Director IGNOU Kolkata RC
12.25 PM -12.45 PM	Keynote Address- Prof. Anil D. Sahasrabudhe, Chairman AICTE

12.45 –1.15 PM   Technology enabled education : Exploring the next level of ICT for local- global connectivity

12.45 PM – 1.00 PM	Prof Gautam Baruah, Director IIIT Guwahati.
1.00 PM - 1.15 PM	Mr Rajorshi Dutta, Global Head. IBM USA.

1.15 PM - 1.30 PM Session Break

1.30 PM - 2.00 PM NEP 2020 : leveraging technology for transforming education in India

1.30 PM - 1.45 PM	Prof. K. R.Srivathsan, Former Professor IIT Kanpur and Visiting Fellow, Odisha State Open University.
1.45 PM – 2.00 PM	Prof. Srinath Baruah, Former Vice Chancellor KKSOU, Guwahati

2.00 PM - 2.30 PM   Social technology for social welfare : Towards equity, access and quality

2.00 PM - 2.15 PM	Prof VirginiusXaxa, Former Director TISS Guwahati
2.15 PM - 2.30 PM	Prof Samir Das, Former Vice Chancellor, North Bengal University and Dean Calcutta University

2.30 PM —3.00PM Popularizing Science: in the path of creating a knowledge

society with scientific temperament	
2.30- 2.45 PM	Prof. Saurabh BasuDepartment of Physics IIT Guwahati
2.45 – 3.00 PM	Dr. P. K Joshi Faculty, Homi Bhabha Centre for Science Education Mumbai
3.00 - 3.05 PM VOTE OF THANKS - Dr. SantanuMukherji, Assistant Regional Director IGNOU Kolkata Regional Centre	

Proposed outcome

1. Digital documentation of deliberations in IGNOU website.
2. Edited Volume Exploring technology enabled education and ODL: NEP2020

Concept and Coordination

Dr. Sujata Dutta Hazarika,Deputy Director IGNOU Regional Centre, Kolkata.