# Prof. G. RAM REDDY MEMORIAL LECTURE 2023



# Open Universities and Education 4.0

By

## Dr. Basheerhamad Shadrach
Director, Commonwealth Educational Media Centre for Asia (CEMCA), New Delhi.



Organised by

## Dr.B.R. Ambedkar Open University,
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# About Dr. BRAOU

The University, initially known as Andhra Pradesh Open University, was set up on 26th August 1982 through an Act of the A.P.State Legislature (APOU Act 1982). Subsequently the University was renamed as Dr.B.R.Ambedkar Open University on 26th October,1991. The establishment of this University, the first of its kind in India, heralded and era of affirmative action on the part of the Government of Andhra Pradesh to provide opportunities of higher education to all sections of society to meet the changing individual and social needs. The University is providing services to the student community through a wide network of 179 study centres spread across both Telangana & Andhra Pradesh States, including 23 Regional Co-ordination centres and 11centres exclusively meant for women students. Prison inmates under life sentence also enrol themselves as students and pursue education through exclusive study centres at Central Prison - Cherlapally, Warangal, Rajahmundry, Visakhapatnam, Kadapa and Nellore and exclusive Study Centre for Army Personal and their family members, which was located at AOC, Secunderabad. The University offers Certificates, UG, PG Diploma and PG Degree and Research Programmes in including various Professional Programmes.

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On Professor G Ram Reddy's 94th birth anniversary, it gives me immense pleasure to be the chief guest and deliver the memorial lecture at Dr B R Ambedkar Open University (BRAOU) in Hyderabad on this day, 12 January 2024.

Professor G Ram Reddy, who left the education community some 29 years ago, just a few days after receiving the Meritorious Award of Excellence, co-sponsored by the Commonwealth of Learning (COL) and the International Council for Distance Education (ICDE) in England at the age of 65, left a huge void in the world of open and distance learning.

Rising to the level of being the first Vice President of COL for a person born in a small village was a testament to his caliber. No doubt, he was known to be the father of Indian ODL landscape! Not only because he founded India's first Open University (OU) in Hyderabad where I am privileged to deliver this memorial lecture at his Karma Bhoomi, he went on to become the founding Vice Chancellor of the Indira Gandhi National Open University (IGNOU) and spread his fragrance through the Asian Open Universities Forum and, then, at the global stage through COL and ICDE.

His journey was phenomenal and squarely rooted in the philosophy of bringing education to the doorsteps of individuals wherever they might be, and the spread and scale of that education in a qualitative manner. His efforts towards making education qualitative was evident when he helped in establishing the National Assessment and Accreditation Council (NAAC). He achieved all these at a very young

age – be it becoming a full Professor, or the VC of his alma mater, the Osmania University at the age of 48 or being the founding father of India's first state Open University and then a National Open University. At Osmania University itself, his passion for distance education was evident.

Had he continued to lend his leadership for two more decades, I am sure the Open and Distance world would have benefited enormously. However, his vision and his legacy are still our guiding force. I offer my gratitude to his family members and to the family of BRAOU, and the Vice Chancellor who continues to commemorate his birthday in the form of organising a memorial lecture in his name. I feel extremely pleased to be delivering this year's lecture.

For almost three decades, we have been following his vision, and I wish to delve into an aspect that would have surely been his pet theme – Open Universities and Education 4.0. Kindly allow me to share my thoughts in the next 30 minutes or so.

While the Open Universities have evolved into more of Open to Online and Distance to Digital Universities, embracing technologies and blended and HyFlex techniques in teaching and learning practices, let me first speak about the idea of Open Universities that Professor G Ram Reddy envisioned and lived through.

## The first era of Open and Distance Learning

Although Open and Distance Learning has been around for almost a century in the developed world, the idea became a reality when the Open University in the UK was created to expand public sector education. In the 1960s, the labour government held the view that people from all backgrounds should have access to higher education. That said, they were moved to defend the establishment of the OU as cost-effective while also facing the criticism of being touted as expensive! Millions of students testified its effectiveness in terms of the impact on their lives. However, in actual terms, in the UK and other geographies, such as Australia and Canada, it was a response to reaching the remote populace.

At the same time, in India, the move towards correspondence education was becoming a reality. Delhi University introduced its bachelor's degree in 1962 whose success resulted in the UGC formulating guidelines. Institutes of correspondence studies were established in the late 1960s. The 1970s witnessed postgraduate programmes being offered in distance mode. And in the 1980s, many more institutions came up with correspondence courses, thus liberalising the strict formula for education for over a century and half. The so-called first era of distance education in both developed and developing nations was clearly a disruptor, a transformational one. It was a response to the increased needs and demands of the education sector. More people aspired to gain tertiary education and certification; economic systems required more educated individuals and the societal necessities demanded people with knowledge and skills.

It was not just that. The first era also produced the Open Universities in India, starting with the Andhra Pradesh Open University (APOU), followed by IGNOU and then in the states of Bihar, Rajasthan, and Maharashtra. These catered to a diverse set of learners. Young and older learners; full-time and part-time learners; abled and disabled learners; formal and fiexible learners; and those who could not otherwise access education. Secondly, the learner support systems were more reliant on learning material and tutorial support. The learning material was to be produced based on an instructional design for an invisible learner, keeping the cultural context and the content needs in mind; therefore, the format had to be appealing and engaging. Although the economy of scale model was meant to bring down the cost of producing this material, the challenge remained in producing material for personalised and specialised learning needs.

In the first era, the management of distance learning had to lean from the experience of those who led traditional institutions and the quality assurance systems were to also rely upon the traditional routes. There were surely initial hiccups. But we have come a long way! From the face of correspondence education of the 1960s to the Open Learning institutions of the 1980s – the likes of BRAOU and IGNOU.

**The second era of Open and Distance Learning**

The second era marked the introduction of need-based courses and the flexibility of pace at which learners can complete the courses. This was coupled with the integration of a generation of educational technologies such as radio, television and video cassettes that provided learning material and instruction to learners. The broadcasts through All India Radio in 16 languages through 14 of their stations were joined by transmission through INSAT 1-B on the national TV network. A network of study centres extended their learners' support systems.

The second era that embraced technology also opened education to the masses; thus, reducing the pressure on conventional universities. The objective was also to provide second chance education to those who discontinued formal education and democratise education for the larger sections of society. The second era was also the beginning of diversifying degree, certificate and diploma courses related to employment and one that was necessary for building the human resource potential of the nation. Rather, this was also the beginning of the notion of lifelong learning to enrich people's lives and livelihoods.

The second era also marked the beginning of an innovative culture in the provision of higher education. While the first era could be termed as the era of disruption, the second era could be termed as the era of innovation in being flexible and open in terms of methods and pace of learning, eligibility criteria, conduct of examination, assessment techniques and the introduction of employment-oriented and combination of courses. As of the early 1990s, of the 4.2 million students in higher education, almost half a million were learning remotely, with IGNOU and the APOU (now BRAOU) at the leading edge.

**The third era of Open and Distance Learning**

The third era can be termed as one when open and distance learning attained some recognition and led to the formation of a global commonwealth institution called the Commonwealth of Learning in Vancouver where Professor Ram Reddy would go on to serve as the

founding Vice President. Distance learning caught the attention of world leaders and at the Commonwealth Heads of Government Meeting (CHOGM) 1987, they decided to establish COL. The Daniel Report chaired by Sir John Daniel developed an institutional arrangement for Commonwealth cooperation in distance learning. This effort led to formalising COL in Vancouver and initiating an information service for open and distance learning institutions from Milton Keynes in the UK.

The third era also marked the beginning of the use of the Internet for ODL, with COL launching its website and a host of services. The Educational Technology 2000 conference held in 1996 in Singapore that brought over 200 participants from 38 nations and the first Pan Commonwealth Forum in 1999 were the beginning of the much-required international collaboration in open and distance learning. Education for our Common Future: the Halifax Statement on Education in the Commonwealth in November 2000 promoted an inclusive agenda in a collaborative manner. The statement emphasised upon the cluster of countries and agencies to work collaboratively to give concrete meaning and realisation of the statement, especially in the areas of a resources for learning; qualifications, standards and equivalencies, School Improvements and Programmes in the Small States; Education to combat HIV/AIDS; Education in difficult circumstances; ICTs in Education; Scholarships, Fellowships and Exchange Schemes; Teacher Training and Professional Development.

In the third era, the Halifax statement became a reality when the Virtual University for Small States of the Commonwealth (VUSSC) was launched in 2004 with 20 small states responding to the invitation. Regional and local level collaborations were initiated. Regional Training and Research Institute for Open and Distance Learning (RETRIDOL) was initiated in Nigeria and the Southern African Regional Distance Education Centre (SARDC) in Botswana and similar initiative in the Pacific called Pacific Centre for Flexible and Open Learning for Development (PACFOLD) came into being. The Indian government and the likes of Professor Reddy and Professor Abdul

Waheed Khan had the foresight to start CEMCA, COL's Asian Regional Centre in the mid-1990s. On the resources front, global institutions such as UNESCO and COL mooted the idea of Open Educational Resources (OER) and brought out the Paris Declaration in 2012. The Declaration was approved at the OER Congress in June the same year.

Subsequent global efforts led to the recognition of the importance of Open Education Resources and the call for market-driven skill development using ODL and blended and flexible learning in collaboration with industry and other service sectors. The Kuala Lumpur Declaration of 2016 emphasised innovation in technology to promote access, equity and lifelong learning, calling the institutions to create a culture to embrace innovation and change. By then, with Sustainable Development Goals (SDGs) 4 and 5 becoming prominent, the KL declaration sought to ensure the education of women and girls through ODL. The discourse also moved to ODL not only addressing the market needs, but also global challenges spelt out in the 17 SDGs.

## The Fourth Era of Open and Distance Learning

The Fourth Era that we are living through for a decade since 2015 where technology-enabled learning has become a way of life, not only are we witnessing efforts at the policy level that promote the use of technology but also at the institutional level that recognise the need for competences among the teachers as well as learners to engage in technology-enabled learning practices. I must admit that in the initial stages of the fourth era, the ODL institutions had clear advantages.

ODL and Open Learning Institutions were at the forefront of tackling the challenges of OER and the education ministers started to talk about ODL for achieving the SDGs and the Edinburgh Statement pronounced the need for scaling up education and the issue of access with quality. ODL institutions demonstrated that they could overcome the digital divide and showcased the digital dividends accrued by their learners.

For the first time, the technology-enabled learning ecosystem was taken very seriously rather than mere introduction of technology in education. And, in the pre-COVID days, talks around micro-

credentials, recognition of experiential and prior learning system, and data-driven and evidence-based planning of the provision of education to the masses were brought to the fore. With technology positively disrupting the delivery systems, reforms in assessments and learner engagement for achieving learning outcomes were being considered.

## Two major transformations in the fourth era of ODL

The first steer to the transformation, perhaps, is the COVID-19 Pandemic in the fourth era of ODL?

The distinct advantages that the ODL systems had on the education landscape found a new dimension when the COVID-19 Pandemic forced every institution to develop strategies and on-the-move solutions in the form of emergency teaching response when all learners were grounded. The importance of open, distance, digital, online, and technology-enabled learning was felt by everyone. What the ODL community was striving to achieve over the first three eras that I summed up was taken up by all.

As a result of our response to the COVID-19 times, not only have we gained some experience in ODL, but we have also raised many questions in the process. Newer challenges were identified. These included reliable access where the access gaps were more prevalent among learners from disadvantaged backgrounds. The shortest bridge, as they say, between the haves and the have-nots of education was being addressed through the education system, but now, with the technology access-related challenges, are these bridges falling?

And, for those who had access to technology and resources, the question raised was – is learning effective enough? Here are a few relevant points for the ODL community, well-articulated in the famous twin reports of the World Bank: a) availability of technology is a necessary but not a sufficient condition for effective remote learning; b) teachers are more critical than ever; c) education is an intense human interaction endeavor; d) parents are key partners of teachers at the early stages of education; e) need for dynamic ecosystem of collaboration between multi-lateral, public, private and academic institutions.

As a way forward, again, as highlighted in the twin reports of the World Bank, we need to ensure that remote learning is fit for purpose. The technology that enables learning should itself be used effectively to enhance the capacity of teachers. We need to find meaningful ways to interact with learners in a two-way fashion. To do this effectively, support systems in teaching and learning process should be established. And all actors should be roped in for enhancing learning outcomes.

The second steer for a major transformation in the fourth era is the National Education Policy 2020 (NEP 2020).

No doubt, the NEP 2020 is a transformational policy document that has the potential to change the landscape of education in India and put India on the education map of the world. As ODL institutions, we considered the importance of the Open Universities when we gathered in Ahmedabad for two full days to deliberate upon the opportunities facing the OUs. And, the Ahmedabad Declaration is worth noting here.

ODL institutions, especially the Open Universities that operate at the tertiary level commit to the SDGs, especially, the fourth goal that promises inclusive and equitable quality education and the promotion of lifelong learning opportunities for all. The Declaration recognises the transformative nature of NEP 2020 for its commitment to all-round development of learners in alignment with the 21st Century Skills, capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper, and creative imagination with sound ethical moorings and values. The Declaration also recommitted to the national target of achieving 50 percent of Gross Enrollment Ratio (GER) by 2035. In doing so, the OUs are aware of their role in reaching the unreached and catering to the marginalised.

The Ahmedabad Declaration emphasises upon OUs' response to continuous skilling, upskilling and reskilling of individuals to meet the demands of the future of work by creating courses in partnership with workplaces and the industry. Thus, shaping the OUs into becoming not only multi-disciplinary institutions but also trans-disciplinary in

nature. In this attempt, the OUs also recognise the importance of OER, and the opportunity presented in sharing resources. OUs would, obviously, take a leadership role in the OER movement. Also, the Declaration calls for collaboration amongst all OUs to consider joint programmes, credit transfers and becoming champions in blended learning.

The OUs commit to tackling problems associated with the digital divide by using appropriate technologies, ranging from Community Radios to the latest generative AI tools for giving students the real learning experience in their situations and contexts. The creativity of NEP 2020 in its exit and entry policy is something the ODL institutions can easily implement while also focusing on just-in-time skilling through micro credentials and by meeting the demands of the industry and the marketplace. Thus, the Ahmedabad Declaration can be seen as a very modern looking statement of the OUs, led by Professor K Seetharama Rao and his colleagues in 17 other OUs in India.

## How do these transformations lead the Open Universities into the next phase?

The implementation of Ous' Ahmedabad Declaration can lead to addressing various problems in higher education, including that of defining a role for higher education institutions.

The NEP 2020 recognises higher education playing an important role in the promotion of human as well as societal well-being and in developing India as a democratic, just, socially conscious, cultured, and humane nation, upholding liberty, equality, fraternity, and justice for all. Higher education, as per the NEP 2020, significantly contributes towards sustainable livelihoods and economic development of the nation. Given the 21st century requirements, the policy highlights that quality higher education must aim to develop good, thoughtful, well-rounded, and creative individuals, who study one of more specialised areas of interest at a deep level, should also be able to develop character, ethical and constitutional values, intellectual curiosity, scienti?c temper, creativity, spirit of service, and 21st century capabilities across a range

of disciplines. A quality higher education must enable personal accomplishment and enlightenment, constructive public engagement, and productive contribution to society. It must prepare students for more meaningful and satisfying lives and work roles and enable economic independence.

While stating the purpose of higher education, the NEP 2020 also recognises the major problems faced by the higher education system in India. Apart from being a severely fragmented higher education ecosystem, there is less emphasis on the development of cognitive skills and learning outcomes and a rigid separation of disciplines, with early specialisation and streaming of students into narrow areas of study.

**Transformative NEP 2020 and the Education 4.0 Framework**

At the backdrop of the purpose of higher education as defined in NEP 2020, it is appropriate to touch upon the Education 4.0 Framework, spelt out by the World Economic Forum (WEF). Involving experts in the education ecosystem, the framework pronounced by the WEF recognises the importance of skill development from a very young age! According to research, early childhood schooling and primary education have positive effects on critical cognitive development among children, building skills which are multiplied through learning later in life. Investing in just one skill – collaborative problem-solving skill – alone can add as much as USD 2.54 trillion dollars to the global GDP.

The Education 4.0 framework recognises the following: Global Citizenship Skills, Innovation and Creativity Skills, Technology Skills, Interpersonal Skills. To help develop these skills, the education system is required to develop mechanisms to embed skill development in their educational content. And, while embedding activities that would hone the above skills in educational content and curriculum, the education system will also need to modify and utilise its pedagogies for building certain competencies, skills, and abilities among our learners. These would include personalised and self-paced learning, accessible and inclusive learning, problem solving-based and collaborative learning, lifelong and student driven learning.

To promote the above, the WEF encourages early education systems to consider what they call the Education 4.0 taxonomy that can help to pave the foundation for cultivating the aptitudes necessary for becoming well aligned to the global workforce. In other words, the Education 4.0 taxonomy is fully integrated with the Global Skills Taxonomy that is applicable in adult workplace. The Education 4.0 Taxonomy is an attempt to address the gap seen among the entrants to the workforce. The approach is aimed at facilitating skills acquisition in early childhood, especially during primary and secondary education, to meet the expectations at the workplace when the child becomes an adult.

Until recently, the emphasis has largely been on knowledge and information transfer, especially discipline-specific knowledge so that our learners excel in those disciplines. The Education 4.0 framework calls for attention towards building certain abilities and skills as well as attitudes and values among our learners apart from the aspect of discipline in specific knowledge build-up.

What are these abilities, skills, attitudes, and values that are referred to here? Until recently, the World Economic Forum recognised some of these as essential 21st-century skills. We are now seeing this defined and articulated in the following.

The abilities and skills are largely defined as cognitive, social, and physical skills leading to acquiring the following skills in the long run. The cognitive skills imparted through education can lead to the aspects of creativity, critical thinking, digital skills programming, problem solving and systems analysis. Social skills imparted through education can lead to the aspects of collaboration, communication, negotiation, socio-emotional awareness, and the physical skills can lead to balance, coordination, positional awareness, and strength.

Attitudes and values are largely defined as self-regulatory and societal skills. In other words, these are referred to as intra-personal and extra-personal skills. While the intra-personal self-regulatory skills lead to adaptability, consciousness, curiosity, grit, growth mindset and take initiatives, the extra-personal societal skills lead to civic

responsibility, environmental stewardship, empathy, kindness, and global citizenship.

**Open Universities and Education 4.0**

The main thrust of NEP 2020 regarding higher education is to end the fragmentation of higher education by transforming higher education institutions into large multidisciplinary universities, colleges, and HEI clusters/Knowledge Hubs, each of which will aim to have 3,000 or more students. This would help build vibrant communities of scholars and peers, break down harmful silos, enable students to become well-rounded across disciplines including artistic, creative, and analytic subjects as well as sports, develop active research communities across disciplines including cross-disciplinary research, and increase resource efficiency, both material and human, across higher education.

The ODL institutions should need to reimagine their institutions to respond to the call by NEP 2020 and to enhance their capacity to focus on learners, who are, largely, the ones who have never benefitted from the Education 4.0 framework described above but are expected to leave the ODL systems with the skills outlined. While the early child education under the 4.0 framework would produce learners for tomorrow, the Open Universities are faced with the challenge of preparing the current learners to have the skills and competencies outlined in Education 4.0.

The Ahmedabad Declaration of Open Universities can indeed contribute to Education 4.0 if each of the points is implemented in its letter and spirit. Let me touch upon at least one action line for each of the points enshrined in the Declaration for the purpose of OUs becoming allies in Education 4.0 and for fulfilling the purpose of higher education as defined in NEP 2020.

## 1. Open Universities' commitment to achieving the Sustainable Development Goals

The Open Universities continue to commit to the United Nations 2030 Agenda for Sustainable Development Goals, in particular, SDGs 4, 5 and 8 for inclusive and equitable quality education and the

promotion of lifelong learning opportunities for all. The Declaration suggests advocating for SDG 4 as a vantage point to achieve the remainder of SDGs, including gender equality, women empowerment, inclusive and sustainable economic growth and decent work and environmental protection, responsible consumption and production, climate action, peace, and justice.

## 2. Open Universities' commitment to developing learners with 21st Century Skills

Recognising the transformative nature of the NEP 2020, the OUs commit to the all-round development of learners in alignment with the 21st Century skills, capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper, and creative imagination, with sound ethical moorings and values. Open Universities shall aim to produce critical, creative, engaged, productive, contributing, and ethical citizens for building an equitable, inclusive, and plural society as envisaged by our Constitution.

## 3. Open Universities' commitment to scaling up of education and to include the excluded.

Recognising the aspirations of the nation in enhancing the GER to 50 per cent by 2035, the Open Universities commit all their resources and efforts towards expanding their reach and sustaining their contribution to the GER growth in the nation, while disregarding any compromise in the quality of education. The Open Universities commit to lifelong learning opportunities for every individual through the ODL systems, especially by reaching the last learner, such as, the migrant workers, indigenous people, rural populations, persons with disabilities, learners in conflict zones, and other vulnerable groups as the 'first choice of education.'

## 4. Open Universities' commitment to skilling, upskilling and reskilling

Responding to the continuous skilling, upskilling, and reskilling of individuals to meet the demands of the future of work by creating courses with involvement from industry and the marketplace, especially

for the marginalised groups through flexible pathways, internships, workplace learning and other apprenticeship opportunities to enhance skills and employability.

## 5. Open Universities' commitment to quality education through ODL

Responding the need for Higher Education Institutions to become multidisciplinary, large, and resilient systems that are agile to changing needs, the Open Universities commit to the demands of the learner-centred curriculum, pedagogy, assessment, and student support systems with an overall vision of delivering quality education through ODL, while enhancing and extending outreach to a diverse set of learners.

## 6. Open Universities' commitment to sharing resources

Open Universities recommit to share resources as Open Educational Resources (OER) on a mutual basis to facilitate the right of universities who enter into such agreements to retain, reuse, revise, remix and redistribute for educational purposes, and to also use up to 40 percent of OER content in their course development.

## 7. Open Universities' Credit Transfer Framework

Recognising the opportunity for education to be choice-based and learner-centred, the Open Universities commit to developing a credit transfer framework to provide flexibility to learners in India by recognising credits earned in Open educational systems and by enabling learners from Open Universities to obtain credits from each other.

## 8. Open Universities to be at the forefront of Blended Learning

Recognising the need for investing in digital technologies and to become one of the prime users of assistive, adaptive, and user-centred technologies to promote blended learning, the Open Universities commit to transforming institutions from massification of education to universalisation, but rapidly moving on to facilitating personalised learning among the millions of learners with diverse interests, potentials and aspirations. Open Universities extend commitments to promoting

ODL and Online programmes, adhering to the standards and quality equivalent to the highest quality programmes run by campus institutions and commit to developing institutional-level blended learning policies towards imparting high quality courses in a blended mode.

## 9. Overcoming digital divide by using appropriate technologies

Open Universities commit to tackling the problems associated with the digital divide by identifying and using appropriate technologies, ranging from community radio to extended realities and artificial intelligence-enabled virtual tutoring possibilities, to ensure that equity, inclusion, and diversity principles are adhered to, and use traditional tools and technologies for learners who do not have adequate access and connectivity to the Internet.

## 10. Commitment to innovation and creativity

Recognising the pioneering role that the ODL system has played over the last many decades, the Open Universities commit to innovation and creativity, in the way and beyond, towards enhancing access to high quality, employment-oriented, short and long-term courses with flexible exit and entry points as a response to market requirements as well as by way of realising NEP 2020's vision of creating lifelong learners, who have a global outlook and are exemplars of global citizenship, while retaining their pride in being Indians first.

## Promises to Professor Ram Reddy on his 94th birth anniversary

While the above commitments of OUs make it compelling for us to believe that they are aligned to the implementation of NEP 2020 in letter and spirit, what begs is the competences of the faculty members of the Open Universities to transform their institutions to be a part of Education 4.0.

To repeat the NEP 2020, "effective learning requires a comprehensive approach that involves appropriate curriculum, engaging pedagogy, continuous formative assessment, and adequate student support. The curriculum must be interesting and relevant, and updated regularly to align with the latest knowledge requirements and

to meet specified learning outcomes. High-quality pedagogy is then necessary to successfully impart the curricular material to students; pedagogical practices determine the learning experiences that are provided to students, thus directly influencing learning outcomes. The assessment methods must be scientific, designed to continuously improve learning and test the application of knowledge. Finally, the development of capacities that promote student wellness such as fitness, good health, psycho-social well-being, and sound ethical grounding are also critical for high-quality learning.

The skills possessed by the staff of OUs shall help in the promotion of Global Citizenship Skills, Innovation and Creativity Skills, Technology Skills, and Interpersonal Skills. To help develop these skills, they need to develop mechanisms to embed skill development in their educational content. And, while embedding activities that would hone the above skills in educational content and curriculum, the education system will also need to modify and utilise its pedagogies for building certain competencies, skills, and abilities among our learners. These would include personalised and self-paced learning, accessible and inclusive learning, problem solving-based and collaborative learning, lifelong and student driven learning.

Our OU faculty members should know to embed the Education 4.0 recognised abilities and skills in their teaching and learning processes, in their delivery methods, in their content and curriculum and in their practical orientation while imparting education to their learners. To repeat, these abilities and skills are largely defined as cognitive, social, and physical skills leading to acquiring the following skills in the long run. The cognitive skills imparted through education can lead to the aspects of creativity, critical thinking, digital skills programming, problem solving and systems analysis. Social skills imparted through education can lead to the aspects of collaboration, communication, negotiation, socio-emotional awareness, and the Physical skills can lead to balance, coordination, positional awareness, and strength.

Attitudes and values are largely defined as self-regulatory and societal skills. In other words, these are referred to as intra-personal and extra-personal skills. While the intra-personal self-regulatory skills lead to adaptability, consciousness, curiosity, grit, growth mindset and take initiatives, the extra-personal societal skills lead to civic responsibility, environmental stewardship, empathy, kindness, and global citizenship.

In the Fourth Era of Open and Distance Education, Professor Ram Reddy would surely wish to see BRAOU and other OUs in India and elsewhere as pioneers of preparing our learners to face the world with the necessary abilities, skills, attitudes, and values apart from discipline-specific knowledge.

I am sure, we are up to it!

# Dr. Basheerhamad Shadrach

## Brief Bio-Data

Dr. B. Shadrach is currently serving the Commonwealth Educational Media Centre for Asia (CEMCA) as its Director. CEMCA is the regional centre of Commonwealth of Learning (COL), Canada and is an inter governmental organisation in the status of United Nations Agencies, recognized by the Indian government that hosts the centre in New Delhi. In this position, he oversees programmes that enhance quality learning and access to education and skill development in Asia. He is also identified as an expert by the Global Partnership of Artificial Intelligence (GPAI) in work programmes related to the Future of Work and AI in Education.

Previously, he has been a consultant to UNESCO-UNEVOC for Building Innovation and Learning in TVET (BILT) program with support from the German Federal Institute for Vocational Education and Training (BIBB) and the German Federal Ministry of Education and Research (BMBF).

In his career since 1986, he has managed ICT4D and lifelong learning programs in over forty nations around the world. He has also served in senior management positions at the British Council, Transparency International, Germany and One World International, UK. He helped the Bill & Melinda Gates Foundation to establish the Indian Public Library Movement and the International Network of Emerging Library Innovators program in South Asia.

Having launched India's first-ever news indexing system, xpres in 1991 while serving the Indian Express Newspaper group. While managing the Building Communication Opportunity Alliance in Asia, in 2004, Dr Shadrach launched Ek Duniya an Ek Awaaz, a unique Community Radio initiative, and a multi-stakeholder alliance of over 600 organisations that advocated for achieving the MDGs in South Asia.

As the global head, telecentre.org Academy, in 2009, he developed a unique training ecosystem for equipping grassroots-level knowledge workers. After successfully establishing the Global Telecentre.org Foundation in Manila in 2010, with support from the ITU, in 2011, he launched the world-wide Tele centre Women: Digital Literacy Campaign which successfully trained over 1 million women in digital entrepreneurship.

In 2015, he launched the Indian Public Library Movement in partnership with BMGF and NASSCOM Foundation and the South Asian INELI program in 2017 in partnership with M. S. Swaminathan Research Foundation. As Skills Advisor at the Commonwealth of Learning, in 2019-20, in collaboration with Udemy, Coursera and Google, he imparted job-ready skills among 200,000 people in Asia, Africa, Caribbean and the Pacific during the COVID-19 Pandemic to help them re-enter the labour market.

During his 37 year-long professional life, Dr Shadrach has also consulted for FCDO, UK; ITU, Geneva; ADB, the Philippines; UNDP, Iraq; Practical Action, UK; the Open University, UK; Article19, UK and the ICT Agency of Sri Lanka. He earned his PhD in Information Science as a faculty student from Loughborough University, UK. He was awarded with a honorary Professorship by Sir Padampat Singhania University, India in November 2022.