INFORMATION
TECHNOLOGY
UNIVERSITY

UNESCO
Chair

ACTIVITIES AND ACHIEVEMENTS

ANNUAL REPORT

APRIL 2024 – MARCH 2025

UNESCO

UNESCO CHAIR OF ICTD

PROF. DR. ADNAN NOOR MIAN

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INTRODUCTION

Under the esteemed leadership of Prof. Dr. Adnan Noor Mian, who was awarded the UNESCO Chair of ICTD in April 2023, the Information Technology University of the Punjab embarked on numerous initiatives to advance the field of Information and Communication Technology for Development (ICTD). The following is a summary of the activities conducted during the reporting period. The report comprises the following sections.

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CHAIR FOR ICTD's VISION

PROF. DR. ADNAN NOOR MIAN
UNESCO CHAIR FOR ICTD

The UNESCO Chair for Information and Communication Technology for Development (ICTD), guided by the visionary leadership of Prof. Dr. Adnan Noor Mian, aspires to be an inspiration of transformative change in Pakistan's ICT landscape. Building upon the rich legacy of Information Technology University (ITU), the Chair envisions advancing the boundaries of ICTD through research, strategic collaborations, and a commitment to fostering sustainable development. With a focus on pioneering initiatives, such as the ICTD Lab, Blockchain Lab, and collaborative projects with the International Centre of Theoretical Physics (ICTP), the Chair aims to connect emerging technologies like Internet of Things (IoT) and Machine Learning (ML) to address pressing societal challenges. By seamlessly integrating academia, industry partnerships, and community engagement, the UNESCO Chair for ICTD, under Prof. Dr. Adnan Noor Mian's guardianship, seeks to propel Pakistan into a future where ICTD not only shapes academic discourse but also contributes tangibly to the nation's progress. This vision is reinforced by a dedication to ethical, inclusive, and impactful technological advancements, ensuring that the UNESCO Chair for ICTD becomes a catalyst for positive change and a model for leveraging ICT in the service of humanity.

ACTIVITIES CONDUCTED

2. Visit to Abdus Salam International Centre for Theoretical Physics

Date: June 29, 2024 – July 19, 2024
Location: Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy
Organizers: Abdus Salam International Centre for Theoretical Physics

Purpose:

To advance research in Federated Learning (FL) and its application to cybersecurity, contributing to the goals of the UNESCO Chair on ICTD. The visit aimed to facilitate collaboration, conduct experiments, and explore innovative research ideas.

Participation Details:

Prof. Dr. Adnan Noor Mian, Vice Chancellor of Information Technology University (ITU) Lahore and UNESCO Chair on ICTD, attended the ICTP as a Senior Associate. During the visit, Prof. Dr. Adnan Noor Mian conducted research on Federated Learning (FL), focusing on novel attacks like model replacement in anomaly detection systems. Prof. Dr. Adnan Noor Mian also participated in the ICTP's 60th anniversary events and engaged with international researchers.

This engagement underscores ITU's commitment to advancing knowledge in Artificial Intelligence (AI) and cybersecurity, in alignment with UNESCO's mission of leveraging ICT for sustainable development and global collaboration.

3. Ceremony for MOU Signing Between ITU and Schzhou City University, China

Date: 5th July, 2024
Mode: Zoom Meeting

Participants from ITU:

Prof. Dr. Adnan Noor Mian	Dr. Muhammad Qasim Mehmood	Dr. Tauseef Tauqeer
Dr. Arif Mehmood	Mr. Ch. Adeel Asghar	Dr. Yaqoob Bangash
Dr. Usman Younis	Dr. Rehan Hafiz	

Purpose:

Signing of a Memorandum of Understanding (MOU) to promote collaboration between ITU and Schzhou City University in China.

Key Cooperation Areas:

1. Establishing an International Joint Metacenter for Advanced Photonics and Electronics.

2. Raining and exchange opportunities for academic staff and faculty members.

3. Exchange programs for undergraduate and postgraduate students.

4. Co-publishing research outcomes.

5. Participation in workshops, masterclasses, symposiums, and academic meetings.

6. Other agreed academic exchanges and cooperation programs, including short courses.

4. First Meeting with International Consultant for Digitalization for Women Economic Empowerment (D4WEE) Project.

Date: 23rd July, 2024

Mode: Online Meeting

Meeting Agenda: Discussion with International Consultant for Digitalization for Women Economic Empowerment (D4WEE) Project.

External Participant: Ms. Eun Ah So

Participants from ITU:

Prof. Dr. Adnan Noor Mian	Dr. Abiha Zahra
Dr. Tauseef Tauqeer	Mr. Ch. Adeel Asghar

Discussion Points:

• ITU's capacity for providing ICTD training.

• Possibilities for informal education for underprivileged women.

• Frequency and capacity for conducting such trainings.

Decision: Based on ITU's responses, Ms. Eun Ah So suggested applying for the UN Women call for proposals to partner with UN Women for these training initiatives.

5. Second Meeting with International Consultant for Digitalization for Women Economic Empowerment (D4WEE) Project.

Date: 1ˢᵗ August, 2024

Meeting Agenda: Discussion with UN Women team for D4WEE Project.

External Participants:

Ms. Fareeha Ummar Portfolio Manager, UN Women	**Ms. Zarene Asif Zuberi** Program Officer, UN Women	**Shahzad Ashraf** UN Women

Participants from PITB:

Mr. Sajid Latif Director General E-Governance, PITB	**Mr. Ahmed Islam** PITB

Participants from ITU:

Prof. Dr. Adnan Noor Mian	**Dr. Tauseef Tauqeer**	**Ch. Adeel Asghar**
Dr. Rehan Hafiz	**Ms. Aimen Shah**	

Discussion Points:

• Collaborative projects focused on empowering women through training, upskilling, and digital literacy.

• An open call for proposals was discussed.

• The meeting concluded with a visit to ITU's labs, National Centers, and Lincoln Corner.

6. Coding Summer Camp 2024

Overview:

The Coding Summer Camp 2024, conducted in collaboration with Seed Programming and Information Technology University (ITU), was a two-month initiative running from June 10, 2024, to August 10, 2024. The camp was designed to offer young learners an immersive experience in programming, logical thinking, and robotics, with a strong emphasis on STEM education. The program included three carefully Organized courses aimed at fostering foundational skills in children.

Program Structure:

The Coding Summer Camp 2024 featured the following courses:

1. Scratch for Beginners (5 weeks):

This course introduced children to the basics of programming using Scratch, a visual programming language that enables them to create interactive stories, games, and animations. Through engaging activities, students developed computational thinking and problem-solving skills.

2. Building Blocks of Code – Python for Children (8 weeks):

Designed to teach Python, this course focused on guiding students through fundamental programming concepts. The content was tailored to suit young learners, allowing them to create simple applications and develop logical reasoning through hands-on exercises.

3. Robotics: From Zero to Hero (5 weeks):

In this course, students were introduced to robotics, where they learned the principles of building and programming robots. The curriculum included hands-on sessions on assembling robotic kits and programming them to perform specific tasks. By the end of the course, participants had gained a strong grasp of robotics and automation.

Key Highlights:

1. Skill Development:

The camp successfully provided participants with essential skills in programming, logic, and robotics. The structured curriculum ensured that students learned in a gradual, step-by-step manner, starting from basic concepts and moving toward more complex projects.

2. Interactive Learning Environment:

The camp fostered a collaborative and interactive learning environment, encouraging students to engage in group activities, share ideas, and collaborate on projects. This peer-driven approach not only enhanced their learning but also promoted teamwork and communication skills.

3. Project-Based Learning:

Throughout the camp, students applied the concepts they learned to practical projects. These ranged from simple Scratch animations to more advanced Python programs and robotics models. The projects were showcased in a final exhibition, where parents and participants could witness the students' accomplishments.

4. Positive Feedback:

The Coding Summer Camp received overwhelmingly positive feedback from both students and parents. Many praised the instructors' ability to simplify complex concepts and the engaging format of the sessions. The hands-on nature of the courses and the emphasis on real-world applications were key factors in the program's success.

Conclusion:

The Coding Summer Camp 2024 was a highly successful initiative that equipped young learners with essential STEM skills, laying a strong foundation for their future academic and professional detections. The partnership with Seed Programming and ITU played a crucial role in delivering a well-structured program that catered to students' varying skill levels. As reflected by the high levels of engagement and the positive responses, this camp has contributed to building a new generation of digital creators and innovators.

7. Participation in the 58th Asia Pacific Advanced Network (APAN) Meeting

Overview:

Prof. Dr. Adnan Noor Mian, the Chairholder for the UNESCO Chair for Information and Communication Technology for Development (ICTD) participated in the 58th APAN Meeting held from August 26-30, 2024, in Islamabad. This significant event, hosted by the Higher Education Commission (HEC) of Pakistan, served as a platform for international collaboration and knowledge exchange on advanced network technologies, with a focus on promoting sustainable societal well-being.

8. Participation in the UNESCO Chairholders' Coordination Meeting

Event: UNESCO Chairholders' Coordination Meeting
Date: September 12, 2024
Location: COMSATS University Islamabad, Wah Campus

Organizers: UNESCO Chair on Knowledge Systems for Integrated Water Resources Management (IWRM), CUI Wah Campus with the technical support from the UNESCO Office in Pakistan
Purpose: To enhance collaboration, knowledge sharing, and partnerships among UNESCO Chairs in Pakistan.

Overview:
Prof. Dr. Adnan Noor Mian, Vice Chancellor of Information Technology University (ITU) Lahore and UNESCO Chair on Information and Communication Technology for Development (ICTD), attended the UNESCO Chairholders' Coordination Meeting. Prof. Dr. Adnan Noor Mian presented ITU's key initiatives under the UNESCO Chair on ICTD, emphasizing the university's contributions to research and development in alignment with the Sustainable Development Goals (SDGs) 5, 9, and 11. He highlighted ongoing research activities in fields such as Artificial Intelligence (AI) and Cyber Security, and discussed potential future collaborations with other UNESCO Chairs. Prof. Dr. Adnan Noor Mian also highlighted the importance of timely distribution of calls for proposals and advocated for enhanced cooperation through workshops on science diplomacy to strengthen global partnerships.

The event served as a platform to explore joint projects and collaborations, with a focus on advancing UNESCO's mission in Pakistan. Prof. Dr. Adnan Noor Mian's participation underscored Information Technology University's commitment to leveraging ICT for sustainable development and international cooperation.

9. Talk on "Quantum Revolution: A New Paradigm in Cyber Security"

Overview:

On Friday, 11th October 2024, the Information Technology University hosted a talk on "Quantum Revolution: A New Paradigm in Cyber Security," presented by Brig (r) Abdul Razzaque. The event took place at Lincoln Corner, 2nd Floor ASTP, from 4:00 PM to 5:00 PM.

Key Highlights:

1. Introduction to Quantum Technology:

Brig (r) Abdul Razzaque opened the session by explaining the fundamental principles of quantum mechanics, including superposition and entanglement. He discussed how these principles underlie advancements in computing, cryptography, and communications.

2. Quantum Warfare:

The speaker explored into the concept of Quantum Warfare (QW), emphasizing its implications for defense and security operations. He articulated the potential threats posed by quantum technologies to strategic infrastructure and highlighted the necessity for updated military strategies and doctrines.

3. Global Efforts in Quantum Technology:

The discussion encompassed ongoing global initiatives in quantum research and development, illustrating how nations are racing to leverage these technologies for both economic and security advantages.

4. Holy Quran & Emerging Technologies:

An insightful segment addressed the relationship between teachings from the Holy Quran and the advancements in emerging technologies, promoting a dialogue between science and faith.

5. Way Forward for Pakistan:

Brig (r) Razzaque concluded with a strategic outlook on how Pakistan can position itself in the global quantum landscape. He stressed the importance of investing in education, research, and collaboration with international partners to harness the benefits of quantum technology.

Conclusion: The talk successfully highlighted the transformative potential of quantum technology in cyber security and defense. It underscored the urgency for Pakistan to embrace these advancements, fostering a culture of innovation and preparedness for future challenges. The event marked a significant step towards enhancing awareness and understanding of quantum technology and its strategic implications for Pakistan.

10. Provincial Consultation on UNESCO's Guidelines

Overview:

On October 24, 2024, a provincial consultation on UNESCO's Guidelines for the Governance of Digital Platforms was successfully held at Lincoln's Corner, Information Technology University (ITU), Lahore. The event, organized in collaboration with UNESCO, Information Technology University and the Institute for Research, Advocacy, and Development (IRADA). The consultation was aimed to introduce these guidelines to stakeholders in Pakistan and to explore the challenges and opportunities for their implementation.

Background:

Digital technologies and online platforms have significantly increased access to information and created spaces for dialogue. However, this expansion has also led to an increase in disinformation, stimulation to hate and violence, and targeted discrimination. Recognizing these global challenges, UNESCO developed the Guidelines for the Governance of Digital Platforms in 2023. These guidelines are the result of extensive consultations and aim to safeguard freedom of expression and access to information through a multi-stakeholder approach while ensuring a safe online environment.

Objectives of the Consultation: The primary objectives of the consultation were to:

1. Initiate a constructive dialogue among stakeholders about the implementation of UNESCO's guidelines.

2. Foster a conducive environment for public discourse on freedom of expression and access to information.

3. Explore potential challenges and opportunities for the adaptation of these guidelines in Pakistan.

4. Develop a roadmap for effective digital platform governance that respects human rights.

Participants and Agenda:

The consultation featured a diverse group of stakeholders, including representatives from civil society organizations, digital rights experts, legal professionals, academics, and digital platform service providers. Notable speakers included:

• Dr. Adnan Noor Mian, Vice Chancellor, ITU

• Mr. Hamza Khan, National Professional Officer, UNESCO

• Dr. Savera Mujib Shami, Chairperson, Department of Digital Media, University of the Punjab

• Aftab Alam, Executive Director, IRADA

The day-long event was structured into multiple sessions and activities as follows:

• **9:30 − 10:00 AM:** Registration of participants by the ITU team.

• **10:00 − 10:30 AM:** Welcome Note and Opening Remarks by Dr. Imdad Hussain a representative from ITU.

• **10:30 − 10:50 AM:** Keynote Address by Prof. Dr. Adnan Noor Mian, focusing on the impact of emerging technologies on fundamental freedoms.

• **10:50 − 11:15 AM:** Presentation on UNESCO's Role in shaping digital transformation by Mr. Hamza Khan, followed by an overview of Pakistan's internet governance landscape by Dr. Savera Mujib Shami.

• **11:15 − 11:30 AM:** Tea Break to facilitate informal networking among participants.

• **11:30 AM − 12:00 PM:** Presentation by Aftab Alam on the rationale and principles behind UNESCO's guidelines, highlighting the global consultative process that shaped the document.

• **12:00 − 1:00 PM:** Panel Discussion moderated by Salwa Rana, addressing the opportunities and challenges for adapting UNESCO's guidelines in Pakistan, with insights from digital rights experts and legal professionals.

• **1:00 − 2:00 PM:** Lunch Break, allowing participants to reflect and engage with each other.

• **2:00 − 2:45 PM:** Breakout Sessions, where stakeholders formed groups to explore the potential impact

of the guidelines on fundamental rights and developed recommendations for a national regulatory framework.

• **2:45 – 3:15 PM:** Group Presentations, with each group sharing their findings and recommendations.

• **3:15 – 4:15 PM:** Consolidating Recommendations and Way Forward, moderated by Adnan Rehmat, where a panel of experts synthesized the day's discussions.

• **4:15 – 4:30 PM:** Closing Remarks by Prof. Dr. Adnan Noor Mian

Key Discussions and Recommendations:

The structured sessions and discussions during the consultation provided valuable insights into various issues surrounding PECA 2016, digital journalism, and online regulation:

• **Stakeholder Perspectives on PECA 2016:**

Academic representatives highlighted concerns regarding the ambiguous language in PECA, which can lead to misinterpretation and misuse, especially against journalism. They emphasized the need for precise laws, transparent data collection, and reduced state control, advocating for enhanced cooperation among stakeholders.

• **Challenges in Digital Journalism:**

Experts in digital journalism pointed out the extensive spread of disinformation and the importance of granting digital platforms autonomy for self-regulation, cautioning against one-sided narratives. They stressed the need for balanced reporting and an independent online media landscape.

• **Civil Society Concerns:**

Civil society members raised concerns about the ineffectiveness of current policies and the challenges of reporting online incidents, particularly for uneducated individuals. They advocated for regulations that are complemented by education and training from an early age.

• **Panel Recommendations:**

Panelists underscored the necessity for an open-minded approach from mainstream media, collaborative digital governance, and increased citizen participation. They emphasized the shared responsibility to safeguard digital spaces, viewing digital rights as integral to human rights.

• **Balanced Approach to Online Freedoms:**

The discussion cautioned against restrictive measures, such as platform bans, which often lead to alternative access through VPNs. Participants emphasized the need for a balanced approach that protects online freedoms and fosters public engagement.

Conclusion:

The provincial consultation was a significant step towards fostering a collaborative environment for digital platform governance in Pakistan. It provided a platform for open dialogue among key stakeholders and laid the groundwork for future initiatives to ensure a safe and inclusive digital space. The successful completion of this event reflects the commitment of UNESCO chair ICTD, IRADA, and UNESCO to promoting freedom of expression and access to information in the digital age.

11. Participation in the Seminar on Transition from Narrow AI to General AI

Organizer: Millennium Project Pakistan Node, in collaboration with AGAHI

Date: October 26, 2024

Mode: Virtual (Zoom)

Overview:

Prof. Dr. Adnan Noor Mian, Vice Chancellor of Information Technology University (ITU) and UNESCO Chair for Information & Communication Technology for Development (ICTD), attended this session. His participation underscored Chair's commitment to the global dialogue on Artificial Intelligence (AI) ethics, governance, and alignment with UNESCO's ICTD mandate.

Event Objectives and Key Themes: The discussion focused on the evolution from Artificial Narrow Intelligence (ANI) to Artificial General Intelligence (AGI) and, potentially, Artificial Super Intelligence (ASI). The themes explored were:

1. Governance and Regulation – Establishing adaptive, international governance frameworks to mitigate potential risks of AGI.

2. Value Alignment and Control – Ensuring AGI development aligns with ethical values and supports peace and security.

3. International Collaboration – Advocating for a collaborative global effort to manage AGI challenges responsibly.

Key Insights Shared by Prof. Dr. Adnan Noor Mian: Prof. Dr. Adnan Noor Mian contributed insights into potential governance models for AGI, emphasizing the importance of establishing foundational policies in Pakistan that align with international ethical standards. He highlighted Pakistan's role in supporting value-driven governance for AGI that upholds fairness, equality, and security.

Outcomes and Actionable Points:

1. National Working Groups – Formation of AI governance working groups in Pakistan.

2. Drafting Position Papers – Contribution to international AGI dialogues through position papers focusing on ethics, policy, and value alignment.

3. Strengthening Partnerships – Collaborating with international entities to advance safe AGI development.

12. Participation in Working Lunch

Date: October 29, 2024

Location: Shahid Javed Burki Institute of Public Policy (BIPP)

Overview:

On October 29, 2024, Prof. Dr. Adnan Noor Mian, the UNESCO Chair for Information & Communication Technology for Development (ICTD), joined a collaborative working lunch at the Shahid Javed Burki Institute of Public Policy (BIPP). This event convened multiple participants from BIPP, the UNESCO Chair for ICTD, and Education Scenario International, fostering a collective dialogue aimed at strengthening and expanding partnerships under the existing Memorandum of Understanding (MOU).

Discussions centered on aligning mutual priorities, exploring new initiatives, and identifying opportunities for impactful collaborative projects. This gathering underscored the Chair's dedication to advancing policy-oriented partnerships and knowledge exchange to drive ICTD-related advancements that benefit national communities. Prof. Dr. Adnan Noor Mian's contributions to the discussion reflected the Chair's commitment to leveraging collaborative efforts in support of UNESCO's objectives in ICT and development.

13. ITU Expo 2024: Showcasing Technological Advancements and Innovations

On October 30, 2024, Information Technology University (ITU) organized the Information Technology University Expo 2024, a platform for faculty and students to present innovative projects addressing critical challenges through technology. Prof. Dr. Adnan Noor Mian, the esteemed Vice Chancellor of ITU and the UNESCO Chair for Information & Communication Technology for Development (ICTD), served as the Chief Guest, reinforcing the university's commitment to leveraging technology for social and economic development.
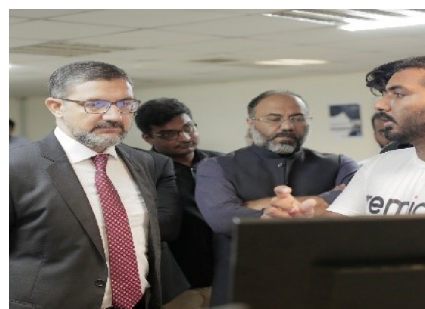
Project Highlights

The Expo featured a variety of research-driven projects that align with the goals of the UNESCO Chair for ICTD, focusing on cutting-edge advancements and practical applications in areas such as Artificial Intelligence, Virtual Reality and Blockchain.

Remarks by Prof. Dr. Adnan Noor Mian

During his visit, Prof. Dr. Adnan Noor Mian applauded the students and faculty for their dedication to developing innovative solutions to some of Pakistan's most pressing issues. He highlighted that these projects not only underscore ITU's commitment to research excellence but also advance the mission of the UNESCO Chair for ICTD by promoting technology that contributes to societal development, education, and sustainability.

Relevance to UNESCO Chair for ICTD

The showcased projects reflect the UNESCO Chair's priorities in fields such as health, environment, poverty alleviation, and capacity building, demonstrating how ICT solutions can address real-world challenges. From AI-driven disease detection and environmental monitoring to blockchain-based security solutions, each project embodies the values of technological advancement and inclusivity that the UNESCO Chair seeks to promote.

14. Participation in the Round Table Conference on Science, Technology, and Engineering for Development (STED)

Date: 15th November 2024

Venue: Planning Commission Auditorium

Chairperson: Prof. Ahsan Iqbal, Minister for Planning, Development and Special Initiatives

Overview

Prof. Dr. Adnan Noor Mian, Vice Chancellor of the Information Technology University and UNESCO Chair for Information and Communication Technology for Development (ICTD), participated in the Round Table Conference on Science, Technology, and Engineering for Development (STED), representing the Chair's commitment to national initiatives promoting technological innovation and sustainable development. The Round Table Conference was organized under the visionary leadership of Prof. Ahsan Iqbal to emphasize the critical role of Science, Technology, and Engineering in national development. This initiative is aligned with the ambitious goal of transforming Pakistan into a one trillion-dollar economy by 2035 through the "5Es" framework.

Objective

1. Establish thematic working groups to address key challenges in the innovation ecosystem.

2. Identify gaps in the innovation value chain and provide strategic recommendations.

3. Foster collaboration among industry, academia, and government to enhance the innovation ecosystem.

4. Discuss essential components of the digital economy and capital landscapes, aiming to build a robust framework for sustainable growth.
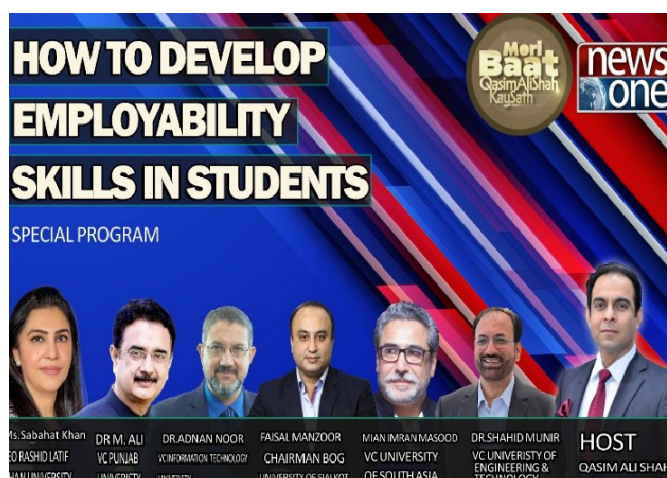
Key Highlights

1. The conference served as the inaugural platform for the establishment of thematic working groups tasked with advancing the "5Es" framework.

2. Discussions revolved around critical aspects of the broader innovation ecosystem, including:

• Completing the innovation value chain.

• Enhancing the digital economy landscape.

• Addressing the capital landscape's requirements.

The event underscored the importance of inter-sectoral collaboration to achieve the outlined developmental goals.

15. Participation in Newsone TV Program: Development of Employability Skills in Students

Overview

On November 18, 2024, Prof. Dr. Adnan Noor Mian, Vice-Chancellor Information Technology University and UNESCO Chair ICTD, appeared on Newsone TV's program hosted by Qasim Ali Shah to discuss the lack of employability skills in university graduates and propose solutions. The UNESCO Chair ICTD advocates for integrating ICT and soft skills in education, collaborates with stakeholders, and organizes training for educators and students to address skill gaps. This participation supports UNESCO's goal of promoting inclusive and quality education by enhancing graduates' readiness for the workforce and aligning educational outcomes with global needs.

Key Discussion Points

• **Industry Concerns:** Graduates often lack critical soft skills such as communication, negotiation, customer service, tolerance, creativity, and motivation.

• **Causes:** Overemphasis on theoretical knowledge, traditional assessment methods, limited practical exposure, overloaded curricula, faculty training gaps, and a mismatch between academic and industry expectations.

• **Role of HEC:** Curriculum reforms, teacher training, university-industry collaboration, and co-curricular activities were emphasized as key solutions.

Proposed Solutions

• Introduce skill-building modules and integrate group projects, debates, and presentations.

• Foster industry partnerships for internships and mentorships.

• Train faculty in experiential learning methods.

• Promote extracurricular programs to develop leadership, teamwork, and innovation.

16. Participation in Panel talk by Academia Magazine

Date: December 2, 2024

Location: University of Management and Technology (UMT), Lahore

Overview:

The panel talk was organized by Academia Magazine. This panel talk explored the evolving role of degrees in the modern job market, focusing on digital literacy, teaching methodologies, and equitable access to quality education. Prof. Dr. Adnan Noor Mian attended and contributed to discussions on education policies, governance, and research. Prof. Dr. Adnan Noor Mian highlighted the need for aligning academic programs with industry demands, fostering applied research, and advocating for governance reforms. Prof. Dr. Adnan Noor Mian's participation reinforced the UNESCO Chair's commitment to driving reforms in education, promoting technological advancements, and improving governance in higher education institutions.

Key Insights:

1. Educational Policies: Focused on the need to align degrees with job market demands.

2. Global Examples: IIT Kanpur, BITS Pilani, and Aryamehr University of Technology tailor their programs to local needs with MIT's support.

3. Teaching Methodologies: Discussed the differences between Traditional Teaching (TT) and Research Teaching (RT), and the role of Professor of Practice.

4. Research Models: Compared HEC, NSF, and DARPA models, emphasizing applied research.

5. Teaching Quality: Evaluated the semester system and relative grading as contributing factors to declining teaching quality.

17. Participation in International Conference on IT and Industrial Technologies 2024

Overview

The UNESCO Chair for ICTD participated in the 2024 International Conference on IT and Industrial Technologies (ICIT 2024) at FAST-NUCES Chiniot-Faisalabad Campus on December 11, 2024. The conference featured 28 keynote talks, 9 workshops, 48 paper presentations, 17 technical sessions, and two MOUs signed with Universiti Teknikal Malaysia Melaka (UTeM) and PKCERT. Prof Dr. Adnan Noor Main, the UNESCO Chairholder for ICTD and also the Vice Chancellor of ITU, delivered a keynote titled "Fortifying Cybersecurity with AI: Defending Against Modern Threats."

Keynote Presentation Highlights

The keynote explored AI's transformative role in cybersecurity, addressing:

1. Modern Cyber Threats: Rising risks such as ransomware, phishing, and DoS attacks.

2. AI-Driven Solutions: Real-time intrusion detection, automated responses, predictive analytics, and federated learning for privacy.

3. Innovative Research at ITU's Cyber Intelligence Lab:

• LightGBM-powered intrusion detection systems.

• Mitigation of WPA3 vulnerabilities.

• AI solutions like continual learning for phishing detection and GANs for malicious address classification.

4. Future Directions: Federated learning for IoT, AutoML for encrypted traffic, lightweight ML models for UAV anomaly detection, and privacy-preserving smart grid techniques.

The UNESCO Chair for ICTD looks forward to participating in ICIT 2025 to showcase innovative research and foster global collaborations.

18. Participation in International Workshop on Cybersecurity Landscape in OIC Countries

Overview

The UNESCO Chair for ICTD participated in the International Workshop on Cybersecurity Landscape in OIC Countries: Issues and Prospects, jointly organized by OIC-COMSTECH and Huawei Technologies. The workshop took place on December 17-18, 2024, at the COMSTECH Secretariat, Islamabad. The event featured keynote addresses, panel discussions, country presentations, and collaborative opportunities for advancing cybersecurity in OIC member states.

Key Highlights of the Workshop

• Inaugural Session: The event began with opening remarks by Prof. Dr. Khurshid Hasanain (Advisor, OIC-COMSTECH) and welcome address by Prof. Dr. M. Iqbal Choudhary, Coordinator General, OIC-COMSTECH. Other notable speakers included Mr. Sun Xiaofei (CEO, Huawei Technologies, Pakistan) and Major General (R) Hafeez Ur Rehman (Chairman, PTA).

• Closed Group Meeting: A roundtable session on "Combating Cybersecurity Challenges in OIC Member States" included remarks from cybersecurity experts representing various OIC countries, discussing collaborative strategies to address evolving threats.

• Technical Presentations: Sessions covered topics such as 5G security, cybersecurity education, regulatory frameworks, and emerging threats, featuring insights from renowned experts like Mr. Emaad Ahmed (Huawei Technologies, UAE), Prof. İbrahim Sogukpınar (GTU, Turkiye), and Mr. Fazlan Abdullah (Cybersecurity Malaysia).

• Panel Discussions: Experts deliberated on policy frameworks for a secure future, emphasizing collaboration and innovation.

UNESCO Chair ICTD Contribution

Prof. Dr. Adnan Noor Mian, UNESCO Chairholder for ICTD, attended the event and shared critical recommendations during the closed session. The suggestions emphasized the importance of developing indigenous cybersecurity solutions and fostering trust in these systems. Key points included:

1. Development of Indigenous Solutions: OIC countries should prioritize creating their own cybersecurity solutions, similar to advancements in nuclear technology.

2. Building Trust in Cybersecurity: Public trust in cybersecurity solutions, such as e-voting systems, is essential. Lack of trust often undermines the efficacy of these technologies.

3. Proposal for a Common R&D Laboratory:

• Establish a collaborative research center distributed across OIC countries or centralized in one location.

• Engage the best minds from member states to develop robust cybersecurity solutions.

• Secure financial support from all OIC countries, modeled after initiatives like CERN in the EU.

4. Focus Areas for the R&D Center:

• Device security vulnerabilities and testing

• Operating system security

• Malware and reverse engineering

• Security by design and software languages

• AI security and related vulnerabilities

This engagement underscores the Chair's active participation in global discussions on cybersecurity and its efforts to address critical challenges through research and innovation.

19. Participation in EdTech Conference Pakistan 2024

Overview:

The EdTech Conference Pakistan 2024, held on 19th December 2024 at the Pak-China Friendship Center, brought together educators and technologists to discuss key trends, challenges, and opportunities in the EdTech sector, with a focus on improving learning outcomes in Pakistan. The conference highlighted the need for research-backed, customized EdTech solutions to address the unique needs of Pakistan's education system. This engagement underscores the Chair's active participation in ICTD aimed at advancing educational technology.

Key Takeaways:

1. Recommended Readings:

• Think Again by Adam Grant

• Biographies by Walter Isaacson

• Fiction by Milan Kundera

2. Challenges in EdTech:

• EdTech often focuses more on technology than education. Many tech solutions lack proper integration in classrooms, and advanced tools (like tablets) are underutilized.

3. Learning Relationships:

• The student-teacher-parent relationship is critical for EdTech success. Only 6-7% of EdTech solutions are evaluated for their impact on learning outcomes.

4. EdTech as a Service:

• EdTech should be seen as a tailored service, not a product. Unlike other technologies, it cannot be globally replicated, although AI solutions like grading systems can be scaled.

5. AI in EdTech:

• Beaconhouse utilizes AI in adaptive lesson plans, remedial learning, and classroom observation to enhance engagement and personalize learning.

6. R&D Needs:

• R&D is essential for creating customized EdTech solutions. Many startups work with limited budgets and rely on grants, underscoring the need for more performance-based feedback and consumer education.

7. EdTech in Public Education:

• The public education sector offers the greatest opportunity for EdTech, although scaling solutions remains a challenge.

8. EdTech Ecosystem in Pakistan:

• The market is dominated by first-time entrepreneurs with limited resources. A stronger focus on R&D, consumer education, and performance-based solutions is required.

20. Participation in Advisory Committee meeting- OIC Artificial Intelligence Vision

Date: January 8, 2025
Venue: COMSTECH Secretariat, G-5/2, Islamabad

Overview

The OIC – COMSTECH (Organization of Islamic Cooperation – Committee on Scientific and Technological Cooperation) has established an Artificial Intelligence Advisory Committee to draft the "OIC Artificial Intelligence Vision." This initiative aims to outline a strategic roadmap for the equitable and responsible adoption of Artificial Intelligence (AI) across OIC member states, ensuring sustainable and inclusive development. The first meeting of the Advisory Committee was held on January 8, 2025, at the COMSTECH Secretariat in G-5/2, Islamabad. Participation in this meeting aligns with the objectives of the UNESCO Chair ICTD to promote responsible technological advancements for development. The Chair's active involvement in shaping the OIC AI Vision underscores its commitment to fostering innovation and collaboration in the field of artificial intelligence.

Participants The Advisory Committee comprises renowned experts from academia, industry, and government. Key participants included:

1. Dr. Shahid Mahmud, CEO, Interactive Group, Islamabad

2. Prof. Dr. Adnan Noor Mian, Vice Chancellor, Information Technology University, Lahore

3. Prof. Dr. Shoab Ahmed Khan (T.I.), CEO CARE Pvt Ltd

4. Prof. Dr. Yasar Ayaz (PoP), Chairman / Central Project Director - National Center of Artificial Intelligence (NCAI), Pakistan

5. Dr. Waqar Mahmood, Director, Al-Khwarizmi Institute of Computer Science (KICS), University of Engineering & Technology, Lahore (UET)

Objective of the Meeting The primary goal of this meeting was to initiate discussions and lay the groundwork for drafting the OIC Artificial Intelligence Vision. The envisioned strategic document aims to:

• Facilitate the responsible and accelerated adoption of AI technologies across OIC member countries.

• Ensure the equitable distribution of opportunities and benefits derived from AI advancements.

• Promote ethical and sustainable AI practices to maximize societal impact.

As the UNESCO Chair for Information and Communication Technology for Development (ICTD), Prof. Dr. Adnan Noor Mian contributed valuable insights into:

• Leveraging AI for sustainable development goals (SDGs).

• Addressing digital divides and fostering inclusivity in AI-driven initiatives.

• Strengthening partnerships between OIC member states for knowledge exchange and capacity building.

The inaugural meeting of the OIC Artificial Intelligence Advisory Committee marked a significant step towards drafting a comprehensive AI Vision for OIC member states. The participation of leading experts, including the UNESCO Chair ICTD, ensured a multidimensional perspective on AI's potential to drive sustainable and inclusive growth. The outcomes of this meeting will serve as a foundation for developing actionable strategies and policies to AI's transformative power for the collective benefit of the OIC community.

21. Participation in Afkar-e-Taaza ThinkFest 8th Edition

Overview:

The 8th edition of Afkar-e-Taaza ThinkFest was held on January 11-12, 2025, at Alhamra Halls, Mall Road, Lahore. The event, which has grown into one of Pakistan's most significant intellectual gatherings, featured distinguished academics, journalists, and thought leaders discussing critical issues across multiple disciplines. Prof. Dr. Adnan Noor Mian, Vice Chancellor of Information Technology University (ITU) and UNESCO Chair for Information and Communication Technology for Development (ICTD), participated in the ThinkFest. He presented a session emphasizing the importance of intellectual discourse, academic freedom, and the role of universities in societal progress.

Presentation Highlights:

1. Introduction with Iqbal's Verse:

• Prof. Dr. Adnan Noor Mian commenced his presentation with a verse by Allama Iqbal: Jahan-e-Taza Ki A'ar-e-Taza Se Hai Namood,

Ke Sang-o-Khisht Se Hote Nahin Jahan Paida.

(A new world emerges from fresh ideas, for worlds are not created with mere bricks and stones.)

• Prof. Dr. Adnan Noor Mian highlighted the relevance of this verse to the ThinkFest, which serves as a platform for new ideas and intellectual exploration.

2. Evolution of ThinkFest:

• ThinkFest originated at ITU in 2016 as a major academic conference and evolved into its current format in 2018.

• Prof. Dr. Adnan Noor Mian expressed his pride in the festival's growth and reiterated ITU's continued support for this initiative as a critical space for discourse and engagement.

3. The Role of Free Thinking in Societal Growth:

• Free thinking is essential for societal development and progress.

• Universities play a crucial role in nurturing free thought by fostering critical debates and intellectual exploration.

• Academic freedom and the exchange of diverse perspectives are vital for creating a dynamic and progressive society.

4. ITU's Vision for Intellectual and Economic Development:

• ITU was established with a dual mandate: to lead Pakistan's technological advancement and to contribute to intellectual growth.

• The university integrates cutting-edge education with research-driven solutions to address national and global challenges.

• ITU's interdisciplinary approach bridges technological innovation with societal impact.

5. The Intersection of Technology and Society:

• While ITU focuses on technology and engineering, it also emphasizes the study of society, recognizing that technological advancements must be contextualized within societal needs.

• The university's curriculum encourages students to engage with social sciences, humanities, and public policy to develop holistic solutions.

Prof. Dr. Adnan Noor Mian's participation in Afkar-e-Taaza ThinkFest 2025 reinforced the significance of academic dialogue in shaping a progressive society. His presentation underscored ITU's commitment to fostering free thinking, interdisciplinary research, and intellectual leadership. The ThinkFest continues to serve as an essential forum for discussing pressing global and national issues, aligning with the objectives of the UNESCO Chair for ICTD in promoting knowledge dissemination and intellectual empowerment.

22. Participation in Promoting South Asia Regional Cooperation in Higher Education

Overview

The Higher Education Commission (HEC) of Pakistan, in collaboration with the World Bank, organized the conference "Promoting South Asia Regional Cooperation in Higher Education" (PSARCHE) from January 14th to 16th, 2025, at the Islamabad Serena Hotel. The event focused on regional collaboration, digital transformation, and aligning higher education with the 21st-century labor market. Prof. Dr. Adnan Noor Mian, UNESCO Chair for ICTD participation showcase his commitment to fostering regional and international collaborations in higher education and technology for sustainable development.

Key Highlights

Prof. Dr. Adnan Noor Mian contributed to discussions on:

• Integrating ICT into higher education for accessibility and regional cooperation.

• Leveraging AI for governance and research enhancement.

• Aligning UNESCO Chair ICTD initiatives with SDGs and regional objectives.

• Identifying areas for regional collaboration in governance and policy.

• Insights on using digital tools and AI to enhance education.

• Strengthened ties with regional organizations.

The event's outcomes will guide future initiatives to enhance partnerships, research, and ICT integration in education.

23. Participation in 5th Rectors' Conference 2024 Islamabad

Overview:

The 5th Rectors' Conference 2024, organized by the Association of Private Sector Universities of Pakistan (APSUP) in collaboration with the Higher Education Commission (HEC) and COMSTECH, was held on January 22-23, 2025, in Islamabad. Building upon insights from the 4th Rectors' Conference 2023, which highlighted the importance of professionalism, ethics, and character development, the 5th Rectors' Conference sought to explore practical approaches to embedding character education within academic and extracurricular frameworks. The event convened a broad spectrum of academic leaders, policymakers, and stakeholders to discuss innovative strategies and address implementation challenges. Prof. Dr. Adnan Noor Mian, Vice Chancellor of Information Technology University and UNESCO Chair for ICTD, actively participated in the conference as a panelist in the session titled "Integrating Character Education into Curriculum & Student Engagement: Strategies and Challenges."

Prof. Dr. Adnan Noor Mian contributed valuable insights during the panel discussion, which focused on the following key areas:

1. Integrating Character Education:

• Designing character-building modules within academic programs and extracurricular activities, leveraging AI-driven educational tools.

• Encouraging faculty and staff to serve as role models, fostering an environment of ethical awareness and responsibility.

2. Engaging Educators:

• Addressing the challenges faced by educators in integrating moral development into their teaching methodologies.

• Exploring interdisciplinary approaches to seamlessly incorporate character education across STEM, business, and the arts, emphasizing AI's role in ethical decision-making and professional integrity.

3. Impact on Students and Communities:

• Examining how character education, supported by AI-driven assessments and learning analytics, fosters civic responsibility and ethical behavior among students.

• Strengthening partnerships between universities, families and communities.

4. Overcoming Challenges in Implementation:

• Addressing resistance from faculty, students, and parents in adopting character education initiatives.

• Developing innovative AI-driven solutions to enhance institutional support for character-building programs and ensure seamless integration into academic curricula.

The participation of Prof. Dr. Adnan Noor Mian in the 5th Rectors' Conference 2024 highlights the UNESCO Chair for ICTD's commitment to promoting value-driven, AI-integrated education in Pakistan. His contributions enriched the discussion on character education, aligning with UNESCO's broader mission of fostering ethical leadership and social responsibility in academia. The insights gained from this conference will inform future initiatives under the UNESCO Chair for ICTD, ensuring the continued advancement of AI-driven education strategies in higher learning institutions.

24. Participation in Seminar: Exploring the Frontiers of Emerging Technologies

Overview:

The Information Technology University (ITU) hosted a seminar on the "17th Annual Report 2024 - The State of Economy: Beyond the Horizons" by the Burki Institute of Public Policy on 7th February 2025. This event brought together esteemed experts to discuss the evolving economic landscape, the role of emerging technologies, and their impact on various sectors. The seminar served as a platform for insightful discussions on the intersection of artificial intelligence (AI) with the economy, higher education, health, and law, while also addressing inclusivity challenges in these domains.

Participation and Engagement

The seminar witnessed active participation from students of MS Public Policy and Society from the Department of Governance and Global Studies, ITU. Their engagement in discussions demonstrated a growing interest in understanding the influence of AI and emerging technologies on economic policymaking and governance.

UNESCO Chair ICTD's contribution during the discussions, Prof. Dr. Adnan Noor Mian highlighted the importance of Artificial Intelligence in economic development and governance. He elaborated on how AI can:

• Optimize policy decisions through data-driven insights.

• Enhance higher education methodologies through adaptive learning technologies.

• Improve healthcare systems by leveraging AI-driven diagnostics and predictive analytics.

• Address legal challenges through AI-based legal research and automated documentation.

• Bridge economic disparities by ensuring inclusive technological adoption.

The UNESCO Chair ICTD participated in this seminar with the aim of fostering interdisciplinary dialogue on AI's impact across economic and governance frameworks. Through such engagements, the Chair seeks to bridge the gap between policy, technology, and society, ensuring sustainable and inclusive digital transformation. The seminar successfully provided a platform for intellectual discourse on the interplay between AI, economy, and governance. The discussions reinforced the need for inclusive technological policies and research-driven AI adoption. The UNESCO Chair ICTD remains committed to furthering dialogue on emerging technologies and their role in achieving sustainable economic growth and development.

25. Participation in the 1st Joint CPA Asia & South-East Asia Regional Conference

Overview

The UNESCO Chair for Information and Communication Technology for Development (ICTD) participated in the 1st Joint CPA Asia & South-East Asia Regional Conference on February 8th, 2025 at New Assembly Hall, Punjab Assembly, Lahore. The conference was an important platform for policymakers, academics, and industry leaders to discuss pressing issues, including advancements in Artificial Intelligence (AI) and ICTD policies. Prof. Dr. Adnan Noor Mian, Vice Chancellor of Information Technology University (ITU) and UNESCO Chair for ICTD, attended the Closing Ceremony on February 8, 2025. Prof. Dr. Adnan Noor Mian highlighted key concerns and recommendations regarding AI policy frameworks, which were well-received by attendees. His contributions focused on:

AI Policy Development:

• Emphasized the need for a national AI policy aligned with global ethical standards.

• Advocated for data privacy regulations and responsible AI governance.

Prof. Dr. Adnan Noor Mian's participation at the 1st Joint CPA Asia & South-East Asia Regional Conference was a milestone in advancing discussions on AI policy. His recommendations have set the stage for further collaboration between government institutions, academic bodies, and technology leaders.

CONCLUSION

The activities and initiatives undertaken by the UNESCO Chair for Information and Communication Technology for Development (ICTD) during April 2024 to March 2025 have significantly contributed to advancing ICTD research, capacity-building, and policy advocacy. Prof. Dr. Adnan Noor Mian, has strengthened academic collaborations, facilitated impactful research, and engaged in meaningful dialogues with different stakeholders.

Key milestones include participation in global ICTD forums, pioneering research in cybersecurity and artificial intelligence, and fostering digital inclusion initiatives such as the Digitalization for Women Economic Empow-erment (D4WEE) project. Additionally, the Chair's involvement in policy discussions, such as the Provincial Consultation on Digital Platform Governance and the OIC Artificial Intelligence Vision, underscores its commit-ment to shaping responsible and inclusive technology policies.

Prof. Dr. Adnan Noor Mian's dedication to education and capacity-building was evident in successful programs such as the Coding Summer Camp 2024, participation in EdTech conferences, and strategic engagements with universities and international organizations. These efforts have enhanced digital literacy, promoted ethical AI development, and strengthened Pakistan's presence in global ICTD dialogues.

Looking ahead, the UNESCO Chair for ICTD remains committed to fostering technological advancements that align with the Sustainable Development Goals (SDGs). Future initiatives will focus on expanding research collaborations, strengthening policy advocacy, and enhancing capacity-building efforts to ensure inclusive and sustainable technological development.

Through these ongoing endeavors, the UNESCO Chair for ICTD at Information Technology University (ITU) continues to serve as a catalyst for transformative change, leveraging ICT to address societal challenges and drive sustainable progress in Pakistan.

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