ITU CENTRES OF EXCELLENCE NETWORK FOR THE ASIA-PACIFIC REGION

FINAL REPORT

OF THE

4 TH STEERING COMMITTEE MEETING

14 DECEMBER 2020

ONLINE MEETING

1. INTRODUCTION AND OPENING

The 4th Steering Committee Meeting of the ITU Centres of Excellence for Asia-Pacific for the 2019-2022 cycle was held online on 14 December 2020. The meeting was organised by the ITU and chaired by the Ministry of Communications and Multimedia, Malaysia. A total of 45 participants registered which includes representatives from the Centres of Excellence (CoEs), CoE Government, other ITU Member states, the ITU Secretariat and other agencies. The list of participants is attached to this report (**Annex 1**).

The composition of the Steering Committee of the CoE Network for Asia-Pacific region for the cycle 2019-2022 are as follows:

- Centres of Excellence: ALTTC, CAICT, IOT Academy, NIA, SRMC and UTM
- Member States: China, India, Islamic Republic of Iran, Malaysia, Republic of Korea and Thailand
- ITU

The 4th Steering Committee Meeting was held virtually attended by the following Steering Committee Members:

- Centres of Excellence: ALTTC, CAICT, IOT Academy, NIA, SRMC and UTM
- Country Representatives: China, Islamic Republic of Iran, Malaysia
- ITU staff from HQ Geneva and Regional Office for Asia and the Pacific

Other Steering Committee Country Representatives that were not present:

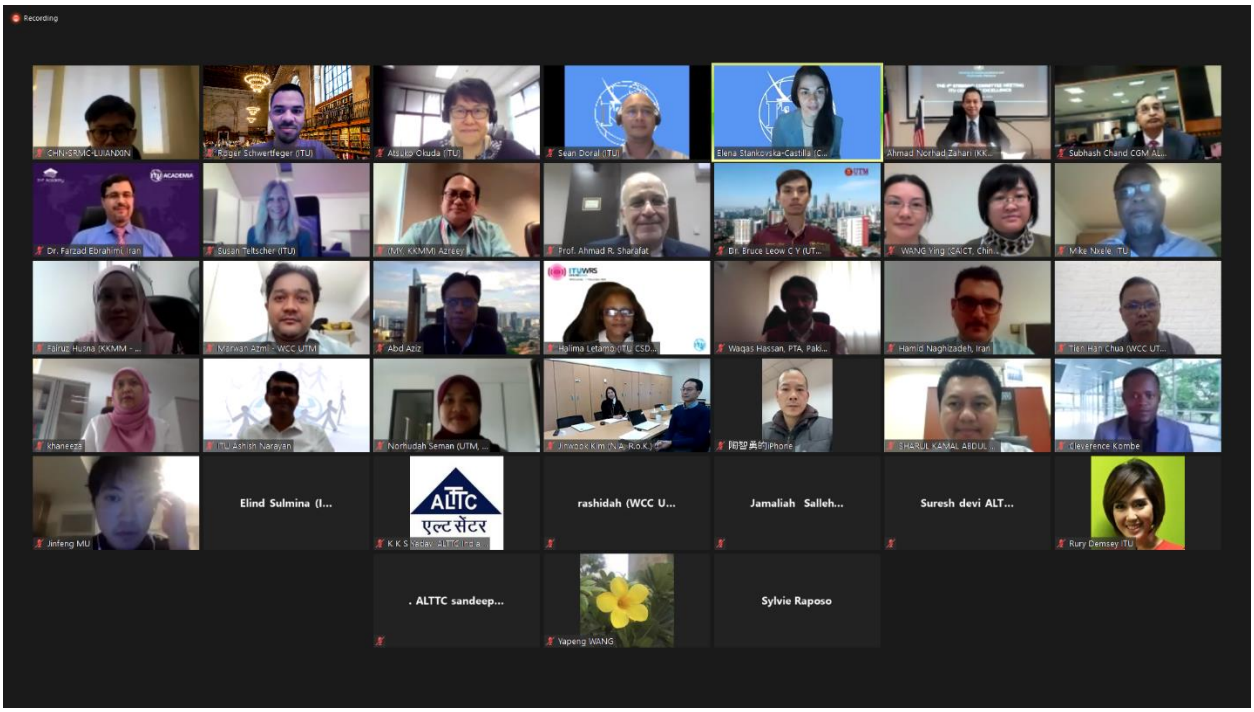
- Country: India, Republic of Korea, Thailand

Ms. Atsuko Okuda, Regional Director, ITU Regional Office for Asia and the Pacific delivered the opening remarks on behalf of the ITU. She thanked all the participants that were present under these challenging circumstances, and emphasised on the importance of the Centres of Excellence trainings as a vehicle to meet the ICT training needs of the ITU Members. She recalled the objective of the meeting, which was to review the progress of the CoEs in 2020, learn from experiences, strengthen cooperation amongst COE members as well as current and potential partners, provide strategic guidance and set the plan for 2021. She also expressed her gratitude to the Chairman of the Steering Committee, the Steering Committee members, the Centres of Excellence and the partners for their contribution to the successful operations of the ITU Asia-Pacific Centres of Excellence.

Dr. Ahmad Reza Sharafat, Professor and Senior Consultant to the Ministry of Communications and Information Technology, Iran thanked the Steering Committee Members for their support during his tenure. He congratulated the CoEs on their performance and also congratulated the incoming chairman and conveyed his full support.

2. CONFIRMATION OF THE COE STEERING COMMITTEE CHAIR

Ms. Susan Teltscher (Head of Capacity and Digital Skills Development, ITU/BDT) invited the meeting to confirm the Steering Committee Chair nominated by the hosting country as per stipulations of the CoE operational guidelines. The meeting confirmed the chairmanship of Malaysia, represented by Mr. Ahmad Norhad Zahari, Under Secretary, Ministry of Communications and Multimedia Malaysia. Mr. Norhad thanked the meeting for the nomination and chaired the 4th Steering Committee Meeting of the CoE Network for Asia-Pacific (2019-2022) Cycle.



Virtual official group photo

3. REVIEW OF THE IMPLEMENTATION OF CoE ACTIVITIES from 2019-2020

3.1 Presentations by ITU

Mr. Sean Doral presented an overview of the implementation of CoE activities in the region.

He presented the status of training for 2019 and 2020. In his presentation, he highlighted that:

- As of 14 December 2020, Asia and the Pacific had 21 planned activities, of which 17 online training were implemented and 1 online training still on-going.
- Due to the restriction caused by the pandemic, 14 face-to-face courses was converted into virtual courses, and three courses had to be cancelled due to COVID19 restrictions.

He thanked and congratulated the CoEs in Asia and the Pacific region for their effort to adapt with the challenging situation and for their effective implementation, despite the unprecedented circumstances.

Mr. Sean Doral provided a detailed performance report of the CoEs performance in 2020. He recalled and stressed on the importance of the core strategies of the CoE in Asia and the Pacific region, which include

- Unique and locally unavailable content aimed at problem-solving;
- International in character;
- Aligned with the strategic work of the ITU
- Low or no fees.

He highlighted the good performance of the CoEs in terms of increase in the overall number of registered and active participants. In 2020, a total of 2974 participants registered for the ASP CoE training, with 1607 active participants and 1285 eligible for certificates as of 1 January 2021.

For the year 2020, the ASP CoE network was able to extend its reach globally, with participants from 141 countries registered for the training offered by CoE ASP. He suggested that this is possibly due to better accessibility for members to participate in online courses, as compared to face-to-face.
He highlighted several areas for improvement, such as:

- To increase the number of qualified participants by improving pedagogical skills in online training delivery;
- To narrow the gap between registered participants versus active participants by identifying strategies to motivate registered participants to participate actively in training;

- To ensure equal value are delivered to participants from across the globe by identifying strategies to provide equal engagement opportunities by utilising various multimedia resources; and
- To bridge the gender divide by increasing the number of female participants.
- To engage all participants to complete the course from beginning to end, especially for the free courses.

3.2 Presentations by Centres of Excellence

The Chair invited the CoEs to present their activity report and training proposal for 2021, including challenges faced in the implementation of training courses. Due to the time constraints, all CoE were invited to provide a brief overview and comments on their training performance for the year 2019/2020 and to present their training plans for 2021, together with a brief overview. Below is a brief overview of the training performance for 2019/2020 and training plan presented by each CoEs.

3.2.1 ALTTC

Mr. Subhash Chand, Principal General Manager, represented ALTTC to present the training performance for 2019/2020 and training plan for 2021. The implementation status and training plan proposal for 2021 are as follow:

Training Implementation for the year 2019

Courses planned	Delivery mode	Original dates	Status	Number of participants registered	Number of participants certified	Course Fees
Information Security Internal Audit	Face-To-Face	27-31 May 19	Implemented	60	60	275
Evolution and emerging trend of broadband access technologies	Face-To-Face	20-24 May 19	Implemented	19	19	275
Broadband Network Security: Challenges & Solutions	Face-To-Face	26-30 Aug 19	Implemented	10	10	275
IoT Applications and IoT Security Aspects	Face-To-Face	9-13 Dec 19	Implemented	30	30	275
Cybersecurity for Enterprises	Face-To-Face	10-15 Oct 19	Implemented	18	18	275
Next Generation Broadband Network: Design, implementation and applications	Online	25 Nov-20 Dec 19	Implemented	5	5	275
Cyber Network Defense & Cyber Laws	Face-To-Face	16-20 Dec 19	Implemented	11	11	100
IoT: Technological Aspects and Implementation	Online	16-27 Dec 19	Implemented	1	1	100

Training Implementation for the year 2020

Courses planned	Delivery mode	Original dates	Final dates	Status	Number of participants registered	Number of participants certified	Course Fees
IoT Advanced Applications - Smart City and Industry 4.0	Online Instructor-Led	20-24 Apr 20	14-25 Sep 20	Implemented	37	31	100
Data Protection Framework, Security Policy & Audit	Online Instructor-Led	21-25 July 20	5-16 Oct 20	Implemented	96	94	100
Digital infrastructure planning	Online Instructor-Led	24-28 Aug 20	12-23 Oct 20	Implemented	17	13	100
Cyber Security and Critical Infrastructure Protection	Online Instructor-Led	8-12 Sep 20	23 Nov-5 Dec 20	Implemented	96	85	100
Advanced Broadband Network QoS and Applications	Online Instructor-Led	4-22 May 20	24 Aug-04 Sep 20	Implemented	75	57	100
IoT Sensors and Network for Disaster Communication	Online Instructor-Led	2-13 Nov 20	20 Jul-31 Jul 20	Implemented	141	119	100

Proposed Training Plan for the year 2021

Courses planned	Delivery mode	Proposed dates	Partners	Venue	Training fee (USD)
IOT & 5G in AI Smart City	Online Instructor Led	15 – 26 Mar 21		ITU Academy	100
Block Chain, AI & SDN: “Opportunities, Challenges and Solutions for Smart Cities	Online Instructor Led	10 – 21 May 21		ITU Academy	100
Ubiquitous Broadband for Future Generations	Online Instructor Led	21 June – 02 July 21		ITU Academy	100
Blockchain: A New Weapon In Cyber-Security	Online Instructor Led	23 Aug – 03 Sep 21		ITU Academy	100
Internet of Things & Artificial Intelligence: Rejuvenation of Life for Persons with Special/Specific Need	Online Instructor Led	13 – 24 Sept 21		ITU Academy	100
Latest Trends in Satellite Broadband Access	Online Instructor Led	04 – 08 Oct 21		Ghaziabad, India	100
Smart Manufacturing: Internet of Things, Artificial Intelligence, Digital Twins In Industry 4.0	Online Instructor Led	15 – 19 Nov 21		Ghaziabad, India	100
Next Generation Broadband : Standards and Applications	Face-To-Face	22 Nov – 26 Nov 21		Ghaziabad, India	275
Trends In Cyber Security & Blockchain Technology	Face-To-Face	06 -10 Dec 21		Ghaziabad, India	275

The final list of proposed training courses for 2021 was agreed after the meeting requested for ALTTC to consider reducing the number of proposed training.

3.2.2 CAICT

Ms. Wang Ying, Engineer, CAICT represented CAICT to present the training performance for 2019/2020 and training plan for 2021. The implementation status and training plan proposal for 2021 are as follow:

Training Implementation for the year 2019

Courses planned	Delivery mode	Original dates	Status	Number of participants registered	Number of participants certified
Conformity & Interoperability (C&I) in 5G	Online	15 Apr-11 May 19	Implemented	91	58
5G and ICT Applications	Online	17 Jun-10 Jul 19	Implemented	47	29
Conformity and Interoperability relating to Smart City	Face-To-Face	18-21sep 19	Implemented	30	30
ICT Application relating to Smart City	Face-To-Face	21-24 Sep 19	Implemented	34	26

Training Implementation for the year 2020

Courses planned	Delivery mode	Original dates	Final dates	Status	Number of participants registered	Number of participants certified
Security Protection and Evaluation for Future Network	Online	11-14 May 20	25 May- 05 Jun 20	Implemented	155	43
Conformity & Interoperability relating to Smart City	Online	6-24 Apr 20		Implemented	87	29
5G Technology and Applications in practice	Online	19-23 Oct 20	12-31 Oct 20	Implemented	340	63
ICT applications relating to smart cities and communities	Online	13-31 July 20	17-30 Aug 20	Implemented	249	58

Proposed Training Plan for the year 2021

Courses planned	Delivery mode	Proposed dates	Partners	Venue	Training fee (USD)
Basic Knowledge and Application of 5G and AI	Online instructor led	19-30 Apr 21		ITU Academy	Free
Digital Economy Standardization and Application	Online instructor led	14-27 Jun 21		ITU Academy	Free
Conformity and Interoperability relating to Industrial Internet	Online instructor led	16-28 Aug 2021		ITU Academy	Free
Conformity and Interoperability relating to 5G	Online instructor led	11-23 Oct 2021		ITU Academy	Free

3.2.3 IoT Academy

Dr Farzad Ebrahimi, Chairman and Founder, IoT Academy represented IoT Academy to present the training performance for 2019/2020 and training plan for 2021. The implementation status and training plan proposal for 2021 are as follow:

Training Implementation for the year 2019

Courses planned	Delivery mode	Original dates	Status	Number of participants registered	Number of participants certified
IOT Security Challenges and Solutions	Online	26 Aug-06 Sep 19	Implemented	59	49
Building IOT Solutions for Energy and Water Resource Management	Online	16-27 Dec 19	Implemented	42	37

Training Implementation for the year 2020

Courses planned	Delivery mode	Original dates	Final dates	Status	Number of participants registered	Number of participants certified
Digital Transformation: Enhancing IoT-Driven Accessibility	Online	11-17 Apr 20	11-17 May 20	Implemented	281	130
Building IoT Solutions for Smart Sustainable Cities	Online	15-19 Aug 20	28 Sep-09 Oct 20	Implemented	37	31
Developing Internet of things Ecosystem	Online	Nov-20	2-13 Nov 20	Implemented	32	27

Proposed Training Plan for the year 2021

Courses planned	Delivery mode	Proposed dates	Partners	Venue	Training fee (USD)
Developing IoT, Big Data and Blockchain solutions for Smart sustainable cities	Online Instructor Led	26 Apr-7 21 May		ITU Academy	100
Building IoT Solutions for Smart Agriculture	Online Instructor Led	23 Aug - 3 Sep 21		ITU Academy	100
Internet of Things concerns for implementing Industry 4.0	Online Instructor Led	8-19 Nov 21		ITU Academy	100

3.2.4 NIA

Ms Heeheun Lee, Manager, NIA represented NIA to present the training performance for 2019/2020 and training plan for 2021. The implementation status and training plan proposal for 2021 are as follow:

Proposed Training Plan for the year 2019

Courses planned	Delivery mode	Original dates	Final dates	Status	Number of participants registered	Number of participants certified
Smart Sustainable City driven by Data, Network and AI Technologies	face-to-face	15-18 Jul 19		implemented	24	20
Artificial Intelligence Overview and Applications	face-to-face	16-19 Sep 19		implemented	47	34
Digital Transformation and Digital Government	online	4-29 Nov 19		implemented	122	41

Proposed Training Plan for the year 2020

Courses planned	Delivery mode	Original dates	Final dates	Status	Number of participants registered	Number of participants certified
Data-driven Governance	face-to-face	24-28 Aug 20	9-13 Nov 20	cancelled		
Digital Platform with Emerging Technologies	face-to-face	21-24 Sep 20	21-24 Oct 20	cancelled		
Government Innovation based on Emerging Technology	online instructor-led	4-29 Nov 20		implemented	459	109
Digital Government & Smart Cities for Resilience	online instructor-led	30 Nov-18 20 December		Implemented	478	198

Proposed Training Plan for the year 2021

Courses planned	Delivery mode	Proposed dates	Partners	Venue	Training fee (USD)
Government innovation using digital Technology in the post COVID 19 era (Tentative)	Online instructor led	2-29 Aug		ITU Academy	Free
Intelligent government based on AI	Online instructor led	1-28 Sep		ITU Academy	Free

3.2.5 SRMC

Ms Li Fu, Senior Engineer, SRMC represented SRMC to present the training performance for 2019/2020 and training plan for 2021. The implementation status and training plan proposal for 2021 are as follow:

Proposed Training Plan for the year 2019

Courses planned	Delivery mode	Original dates	Status	Number of participants registered	Number of participants certified
Spectrum Management and IMT 2020 Radio Technology Application	Face-To-Face	17 - 21 Jun 19	Implemented	35	34
Spectrum Engineering and IMT2020	Online	1 - 19 Jul 19	Implemented	88	59

Proposed Training Plan for the year 2020

Courses planned	Delivery mode	Original dates	Final dates	Status	Number of participants registered	Number of participants certified
Spectrum Pricing, Auction and Allocation	Face-To-Face	7-10 Sep 20	23-26 Nov 20	Cancelled		
Spectrum Management and Frequency (RF) Monitoring	Online Instructor-Led	21-25 Sep 20	17-28 Aug 20	Implemented	359	170

Proposed Training Plan for the year 2021

Courses planned	Delivery mode	Proposed dates	Partners	Venue	Training fee (USD)
Spectrum Management and Technology Application	Online Instructor Led	5-16 Jul		ITU Academy	Free
Spectrum Management and Spectrum Engineering Techniques	Online Instructor Led	6-17 Sep		ITU Academy	Free

3.2.6 UTM

Dr Bruce Leow, Associate Professor, Wireless Communication Center, UTM represented UTM to present the training performance for 2019/2020 and training plan for 2021. The implementation status and training plan proposal for 2021 are as follow:

Proposed Training Plan for the year 2019

Courses planned	Delivery mode	Original dates	Status	Number of participants registered	Number of participants certified
Fifth Generation (5G) Technology: State-of-the-Art, Opportunities and Challeges	Face-To-Face	15-17 Oct 19	Implemented	28	28
Human exposure to Radio Frequency Electromagnetic Fields	Face-To-Face	3-5 Dec 19	Implemented	13	13
Traffic engineering and advanced wireless network planning	Face-To-Face	30 Sep-03 Oct 19	Implemented	53	33

Proposed Training Plan for the year 2020

Courses planned	Delivery mode	Original dates	Final dates	Status	Number of participants registered	Number of participants certified
Human Exposure To Radio Frequency Electromagnetic Fields	Online Instructor-Led	14-16 Apr 20	23 Nov-06 Dec 20	Implemented	16	10
Fifth Generation (5G) Radio Access Network Planning and Technology Coexistence	Online Instructor-Led	21-23 Jul 20	14-28 Sep 20	Implemented	19	18
Human Exposure To Radio Frequency Electromagnetic Fields	Online Instructor-Led	Nov-20		Cancelled as similar training were merged in coorperation with ITRC due to COVID19		

Proposed Training Plan for the year 2021

Courses planned	Delivery mode	Final dates	Partners	Venue	Training fee (USD)
Fifth Generation (5G) Implementation: Practices and Case Studies	Online	28 Jun – 11 Jul 2021		ITU Academy	300
Human Exposure to Fifth Generation (5G) Electromagnetic Fields: Guidelines, Measurements & Case Studies	Online	4 – 17 Oct 2021		ITU Academy	300

All presentations made are available on the website: http://academy.itu.int

Following the presentations, the Steering Committee discussed and agreed in principle on the ITU CoE network for Asia and the Pacific proposed training courses for the coming year. A total of 19 courses were proposed for 2021.

However, further to the operationalisation of the Quality Assurance Process and Procedure, introduced in Q4 2020, all proposed training outlines will undergo review from ITU Thematic Priority Coordinators before the final training plan is adopted and circulated.

The table with the proposed and agreed courses for the region is attached as **Annex 2.**

The following issues were raised during the discussions:

- Several CoEs had a lower number of international participants and highlighted the need to promote the courses better.

- Several CoEs requested for some flexibility to be given on registration deadline to accommodate participants that registered late.
- CoEs highlighted the importance of partnership with other academic institutions to further improve the quality of the training content.
- As some courses are best-delivered face-to-face due to the practical nature of the subject, CoE's discussed the need to improve the pedagogical skills of delivering courses online and to also consider introducing face-to-face training again, once the situation surrounding COVID19 improves.
- It was highlighted that several CoEs experience low participation from registered participants that took part in courses that are offered for free. An issue was brought up on whether charging a nominal fee could potentially increase the commitment of participants. However, no consensus was reached with regards to this issue.

4. DISCUSSION ON STRATEGIC AND OPERATIONAL ISSUES RELATED TO THE IMPLEMENTATION OF THE COE NETWORK ACTIVITIES

Ms. Susan Teltscher delivered a presentation on strategic and operational matters pertaining to CoE operations. She brought forward four matters for the attention of the CoEs which are highlighted below:

4.1 Feasibility Study

A Feasibility Study to establish a capacity-building institute in ITU was conducted to study the possible creation of such an institute. The objective of such an institute would be to provide ITU training that empowers officials of developing countries with the skills needed to manage their critical resourcers, roll out infrastructure and develop national plans and strategies in collaboration with ICT experts from governments, industry and academia.

Elements covered in the study are: stocktaking of existing capacity development activities provided by ITU, identifying existing gaps and areas of improvement, assessing demand for a new training institute, developing resource requirements and governance structure for the new training institute, exploring and presenting alternative options to improve ITU's work on capacity development and the report will include recommendations.

This was shared with CoEs because some recommendations will be made with respect to the CoE programme and how it should evolve in the future.

CoEs raised a question on the outcome and purpose of this study, taking into consideration the availability of the existing CoE training model. Ms Susan responded that the feasibility study is at the preliminary stage of this exploration of the idea to develop such an institute. The outcome and recommendations will be available in the Final Report which will be presented to the ITU Council in 2021.

4.2 Quality Assurance

In order to ensure the quality of the training delivered by CoEs and to ensure that the courses offered are aligned to the ITU area of work, ITU has developed a quality assurance process that is being adopted internally for the development and/or checking of training materials to assure quality of the training material that is being delivered under ITU's name and according to ITU's mandate.

Ms Susan presented this new process briefly to the CoEs, with further details and coordination of the process to be done by the Capacity Development (CD) Regional Lead. This process, in general, will require support and cooperation from all CoEs to submit their detailed training plan, course outline and teaching resources at the stipulated time, to ensure that the training courses offered are aligned with the standards set by the ITU.

The process for developing/checking CoE training plans and training materials entails that CoEs are expected to submit their draft training plans to the ITU CD Thematic Priority (TP) Regional Lead two months before the date of the Steering Committee meeting. Each course must be accompanied by a detailed course description showing the objectives of the course, the topics to be covered and the learning outcomes.

The CD Thematic Priority (TP) Regional Lead submits the course description to the respective Thematic Priority Coordinators leading the topic for their review and feedback.

Thematic Priority Coordinators can propose to CoEs subtopics within the priority areas for which the CoEs were selected and would like CoEs to deliver courses on, including areas that the CoEs may not have indicated in their training plans.

4.3 Global CoE Meeting

The idea to organise a global Event for CoEs in 2021 was presented to provide a platform for all CoEs to network and share experience and best practices. Due to the restriction, the event will be organised virtually during the first semester of 2021.

All CoEs welcomed this proposal and agreed that this event will benefit all CoEs to learn from each CoEs best practice, and deliver better training for the participants. It was suggested that the event should also include Academia members.

4.4 ITU Staff Participation in CoE Courses

Ms Susan requested for CoEs to consider allowing 1-2 participants from the ITU to participate in CoE courses at no charge, to learn and share their experiences in CoE training courses. All CoEs agreed to this suggestion and welcomed the experience and comments shared by the participants taking part in the courses.

5. DISCUSSION AND ADOPTION OF DRAFT REPORT

Following the discussions, the meeting agreed as follows:

a) The meeting was encouraged to continue using the ITU Academy platform as 2020 performance indicates the success of the training being able to reach greater and wider participants. All course participants (for both face-to-face and online courses) need to register through the ITU Academy.

b) The need for CoEs to actively promote their activities (in addition to ITU's promotion) is very important. The use of digital media platforms is key in this regard.

c) CoEs are highly encouraged to use ITU content and while developing the content. The ITU Secretariat will provide to all Centres of Excellence with the syllabus developed for the purposes of CoE training (the use of the material is for free).

d) As of 2020, no individual course invitations will be sent out by ITU any longer. Instead, ITU will send a letter to its membership on a biannual basis (beginning of the year and mid-year) informing them of all courses that are planned in a particular region for the coming semester.

e) The Steering Committee Meeting recommended CoEs to keep the overall number of courses at manageable level, and to focus on quality of the training courses.

f) CoEs are requested to complete the training course outline by 15 January 2021 to finalise the training catalogue. The training course outline will undergo the ITU Quality Assurance Process, and before it is published onto the 2021 CoE Training Catalogue.

g) CoEs are requested to review the dates and to consider dates that would not clash with other CoE training. This will be coordinated by the Capacity Development regional lead.

h) In order to maintain effectiveness of delivery and assurance of quality of the courses, it was agreed that the maximum number of courses offered should be limited accordingly.

i) The next Steering Committee will be held virtually in Q2 of 2021.

6. CLOSING

The meeting ended with closing remarks from Mr. Ahmad Norhad Zahari, Chair of the Steering Committee as well as Ms. Atsuko Okuda, Regional Director for ITU Regional Office for Asia and the Pacific.

Annex 1

List of Registered Participants

Number	Representation	Entity / Name / Job Title / Email	Meeting(s) & Function
1.	**Member States** China (People's Republic of)	**Ministry of Industry and Information Technology (MIIT)** **Ms. Jianxin LI** Senior engineer lijianxin@srrc.org.cn	ASP CENTRES EXCELL [**Deputy Head,P**]
2.	**Member States** China (People's Republic of)	**Ministry of Industry and Information Technology (MIIT)** **Ms. Li FU** Senior Engineer fuli@caict.ac.cn	ASP CENTRES EXCELL [**Delegate**]
3.	**Member States** China (People's Republic of)	**Ministry of Industry and Information Technology (MIIT)** **Ms. Yapeng WANG** Deputy Director wangyapeng@caict.ac.cn	ASP CENTRES EXCELL [**Delegate,P**]
4.	**Member States** China (People's Republic of)	**Ministry of Industry and Information Technology (MIIT)** **Ms. Ying WANG** Engineer wangying@caict.ac.cn	ASP CENTRES EXCELL [**Delegate,P**]
5.	**Member States** Malaysia	**Ministry of Communications and Multimedia Malaysia** **Mr. Ahmad Norhad ZAHARI** Under Secretary norhad@kkmm.gov.my	ASP CENTRES EXCELL [**Head of Delegation,P**]
6.	**Member States** Malaysia	**Ministry of Communications and Multimedia Malaysia** **Mr. Mohd Azreey Shah Bin ABD. AZIZ**	ASP CENTRES EXCELL [**Delegate,P**]

Number	Representation	Entity / Name / Job Title / Email	Meeting(s) & Function
		Principal Assistant Secretary azreey@kkmm.gov.my	
7.	**Member States** Malaysia	**Malaysian Communications and Multimedia Commission** **Ms. Khaneeza KHALID** Head of Division khaneeza.khalid@mcmc.gov.my	ASP CENTRES EXCELL [**Delegate,P**]
8.	**Member States** Malaysia	**Malaysian Communications and Multimedia Commission** **Mr. Tukefli KHAZALI** Manager tukefli.khazali@mcmc.gov.my	ASP CENTRES EXCELL [**Delegate**]
9.	**Member States** Malaysia	**Ministry of Communications and Multimedia Malaysia** **Ms. Fairuz Husna Binti MUHAMAD FARID** Assistant Secretary fairuz@kkmm.gov.my	ASP CENTRES EXCELL [**Delegate,P**]
10.	**Member States** Pakistan (Islamic Republic of)	**Pakistan Telecommunication Authority (PTA)** **Mr. Waqas HASSAN** Assistant Director, International Liaison and Training waqashassan@pta.gov.pk	ASP CENTRES EXCELL [**Delegate,P**]
11.	**United Nations and its Specialized Agencies** International Telecommunication Union	**International Telecommunication Union** **Ms. Halima LETAMO** Capacity Development	ASP CENTRES EXCELL [**Delegate,P**]
12.	**Recognized Operating Agencies** Telekom Malaysia	**Telekom Malaysia Berhad** **Mr. Awang ABDUL AZIZ** General Manager	ASP CENTRES EXCELL [**P**]

Number	Representation	Entity / Name / Job Title / Email	Meeting(s) & Function
	Berhad Malaysia		
13.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Mr. Miko NXELE** Senior Human Capacity Building Officer, Telecommunication Development Bureau	ASP CENTRES EXCELL [**ITUSTAFF,P**]
14.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Mr. Marian PLETOSU** Digital Skills Officer marian.pletosu@itu.int	ASP CENTRES EXCELL [**ITUSTAFF**]
15.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Ms. Rury Septia Hasanah DEMSEY** Digital Inclusion Junior Officer rury.demsey@itu.int	ASP CENTRES EXCELL [**P**]
16.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Ms. Eun-Ju KIM** Chief of Digital Knowledge Hub eun-ju.kim@itu.int	ASP CENTRES EXCELL
17.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Mr. Cleverence KOMBE** Capacity Development (intern) cleverence.kombe@itu.int	ASP CENTRES EXCELL

Number	Representation	Entity / Name / Job Title / Email	Meeting(s) & Function
18.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Patricia LUSWETI** Head, Support Services Division	ASP CENTRES EXCELL
19.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Mr. Ashish NARAYAN** Programme Coordinator ashish.narayan@itu.int	ASP CENTRES EXCELL [**P**]
20.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Ms. Sylvie RAPOSO** Capacity Development Administrative Coordinator sylvie.raposo@itu.int	ASP CENTRES EXCELL [**P**]
21.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Ms. Elena STANKOVSKA-CASTILLA** Associate Capacity Development Officer elena.stankovska-castilla@itu.int	ASP CENTRES EXCELL
22.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Ms. Susan TELTSCHER** Head of the Human Capacity Building Division, Telecommunication Development Bureau	ASP CENTRES EXCELL [**P**]
23.	**ITU Staff** International Telecommunication	**International Telecommunication Union** **Mr. Sean Sharidz DORAL**	ASP CENTRES EXCELL [**ITUSTAFF,P**]

Number	Representation	Entity / Name / Job Title / Email	Meeting(s) & Function
	Union Switzerland (Confederation of)	Program Officer sean.doral@itu.int	
24.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Mr. Roger SCHWERTFEGER** Junior intern roger.schwertfeger@itu.int	ASP CENTRES EXCELL [**ITUSTAFF,P**]
25.	**ITU Staff** International Telecommunication Union Switzerland (Confederation of)	**International Telecommunication Union** **Atsuko OKUDA** Regional Director	ASP CENTRES EXCELL [**ITUSTAFF,P**]
26.	**Academias** Tarbiat Modares University Iran (Islamic Republic of)	**Tarbiat Modares University** **Prof. Ahmad Reza SHARAFAT** Professor of Electrical and Computer Engineering sharafat@modares.ac.ir	ASP CENTRES EXCELL [**Head of Delegation,P**]
27.	**Academias** Faculty of Applied Science of Post and Telecommunication Iran (Islamic Republic of)	**Faculty of Applied Science of Post and Telecommunication** **Mr. Maghsood ZERAAT** Specialist zeraat@ictfaculty.ir	ASP CENTRES EXCELL [**Invited Expert**]
28.	**Academias** The University of Dodoma Tanzania (United Republic of)	**The University of Dodoma** **Mr. Cleverence KOMBE** Researcher clevernce@gmail.com	ASP CENTRES EXCELL [**P**]

Number	Representation	Entity / Name / Job Title / Email	Meeting(s) & Function
29.	**Academias** ICT Research Institute Iran (Islamic Republic of)	**ICT Research Institute** **Dr. Maryam Tayefeh MAHMOUDI** Head of Education, Scientific and International Collaboration Office mahmodi@itrc.ac.ir	ASP CENTRES EXCELL [**P**]
30.	**Academias** Huazhong University of Science & Technology China (People's Republic of)	**Huazhong University of Science & Technology** **Mr. Tao ZHIYONG** professor 525420685@qq.com	ASP CENTRES EXCELL [**P**]
31.	**Academias** IoT Academy Iran (Islamic Republic of)	**IoT Academy** **Mr. Hamid NAGHIZADEH** Education Coordinator h.naghizadeh@iotaci.com	ASP CENTRES EXCELL [**Panellist,P**]
32.	**Academias** IoT Academy Iran (Islamic Republic of)	**IoT Academy** **Mr. Dr. Farzad EBRAHIMI** Chairman & Founder ebrahimi@iotaci.com	ASP CENTRES EXCELL [**Speaker,P**]
33.	**Non Member** Universiti Teknologi Malaysia Malaysia	**Universiti Teknologi Malaysia** **Mr. Chee Yen (bruce) LEOW** Associate Professor, UTM ITU COE Coordinator bruceleow@utm.my	ASP CENTRES EXCELL [**Head of Delegation,P**]
34.	**Non Member** Universiti Teknologi Malaysia Malaysia	**Universiti Teknologi Malaysia** **Mr. Sharul Kamal ABDUL RAHIM** Lecturer sharulkamal@utm.my	ASP CENTRES EXCELL [**Delegate,P**]
35.	**Non Member** Universiti Teknologi Malaysia Malaysia	**Universiti Teknologi Malaysia** **Ms. Rashidah ABDUL SHUKOR** Admin	ASP CENTRES EXCELL [**Delegate,P**]

Number	Representation	Entity / Name / Job Title / Email	Meeting(s) & Function
36.	**Non Member** Universiti Teknologi Malaysia Malaysia	**Universiti Teknologi Malaysia** **Mr. Marwan AZMI** Senior Lecturer hadri@utm.my	ASP CENTRES EXCELL [**Delegate,P**]
37.	**Non Member** Universiti Teknologi Malaysia Malaysia	**Universiti Teknologi Malaysia** **Mr. Tien Han CHUA** Lecturer thchua@utm.my	ASP CENTRES EXCELL [**Delegate,P**]
38.	**Non Member** Universiti Teknologi Malaysia Malaysia	**Universiti Teknologi Malaysia** **Mr. Mohd Haizal JAMALUDDIN** Lecturer	ASP CENTRES EXCELL [**Delegate**]
39.	**Non Member** Bharat Sanchar Nigam Ltd. (BSNL) India (Republic of)	**Bharat Sanchar Nigam Ltd. (BSNL)** **Mr. Aditya Kumar JHA** Dy General Manager (EB) sdebd2010@gmail.com	ASP CENTRES EXCELL [**Delegate,P**]
40.	**Non Member** Universiti Teknologi Malaysia Malaysia	**Universiti Teknologi Malaysia** **Ms. Jamaliah SALLEH** Research Officer	ASP CENTRES EXCELL [**Delegate,P**]
41.	**Non Member** Universiti Teknologi Malaysia Malaysia	**Universiti Teknologi Malaysia** **Ms. Norhudah SEMAN** Lecturer norhudah@utm.my	ASP CENTRES EXCELL [**Delegate,P**]
42.	**Non Member** Universiti Teknologi Malaysia Malaysia	**Universiti Teknologi Malaysia** **Ms. Hasline MOHAMAD** PERSONAL ASSISTANCE hasline@utm.my	ASP CENTRES EXCELL [**P**]
43.	**Non Member** Universiti Teknologi Malaysia Malaysia	**Universiti Teknologi Malaysia** **Ms. Rifhan NARRISSA** Assistant Research Officer	ASP CENTRES EXCELL [**P**]

Number	Representation	Entity / Name / Job Title / Email	Meeting(s) & Function
44.	**Non Member** National Information Society Agency (NIA) Korea (Republic of)	**National Information Society Agency (NIA)** **Mr. Jinwook KIM** Executive Principal	ASP CENTRES EXCELL [**Speaker,P**]
45.	**REGORG** Asia-Pacific Telecommunity	**Asia-Pacific Telecommunity** **Mr. Jinfeng MU** Intern	ASP CENTRES EXCELL [**Invited Expert,P**]

Annex 2

List of Proposed Courses for 2021

No.	Month	Organisation	Courses	Delivery	Dates
1.	**March**	ALTTC	IOT & 5G in AI Smart City	Online instructor led	15 – 26 Mar, 2021
2.	**April**	CAICT	Basic Knowledge and Application of 5G and AI	Online instructor led	19-30 Apr 2021
3.		IoT Academy	Developing IoT, Big Data and Blockchain solutions for Smart sustainable cities	Online instructor led	26 Apr-7 May
4.	**May**	ALTTC	Block Chain, AI & SDN: "Opportunities, Challenges and Solutions for Smart Cities	Online instructor led	10 – 21 May, 2021
5.	**Jun**	CAICT	Digital Economy Standardization and Application	Online instructor led	14-27 Jun, 2021
6.		ALTTC	Ubiquitous Broadband for Future Generations	Online instructor led	21 June – 02 July, 2021
7.		UTM	Fifth Generation (5G) Implementation: Practices and Case Studies	Online instructor led	28 June – 11 July 2021
8.	**July**	SRMC	Spectrum Management and Technology Application	Online instructor led	5-16 Jul
9.	**August**	NIA	Government innovation using digital technology in the post COVID 19 era	Online instructor led	2 – 29 Aug 2021
10.		CAICT	Conformity and Interoperability relating to Industrial Internet	Online instructor led	16-28 Aug, 2021
11.		IoT Academy	Building IoT Solutions for Smart Agriculture	Online instructor led	23 August - 3 Sep
12.		ALTTC	Blockchain: A New Weapon In Cyber-Security	Online instructor led	23 August – 03 September 2021
13.	**September**	NIA	Intelligent government based on AI	Online instructor led	1-28 Sep

No.	Month	Organisation	Courses	Delivery	Dates
14.		ALTTC	Internet of Things & Artificial Intelligence: Rejuvenation of Life for Persons with Special/Specific Need	Online instructor led	13 – 24 Sep 2021
15.		SRMC	Spectrum Management and Spectrum Engineering Techniques	Online instructor led	6-17 Sep
16.	October	CAICT	Conformity and Interoperability relating to 5G	Online instructor led	11-23 Oct 2021
17.		ALTTC	Latest Trends in Satellite Broadband Access	face-to-face	04 – 08 Oct 2021
18.		UTM	Human Exposure to Fifth Generation (5G) Electromagnetic Fields: Guidelines, Measurements & Case Studies	Online instructor led	4 – 17 Oct 2021
19.	November	IoT Academy	Internet of Things concerns for implementing Industry 4.0	Online instructor led	8 - 19 Nov
20.		ALTTC	Smart Manufacturing: Internet of Things, Artificial Intelligence, Digital Twins In Industry 4.0	face-to-face	15 – 19 Nov 2021
21.		ALTTC	Next Generation Broadband : Standards and Applications	face-to-face	22 Nov – 26 Nov 2021
22.	December	ALTTC	Trends In Cyber Security & Blockchain Technology	face-to-face	06 Dec – 10 Dec 2021