

ITU CENTRES OF EXCELLENCE NETWORK FOR THE AFRICA REGION

REPORT OF THE VIRTUAL STEERING COMMITTEE MEETING

6 DECEMBER 2021 VIRTUAL MEETING

INTRODUCTION AND OPENING

The virtual Steering Committee meeting for the ITU Africa Centres of Excellence (CoE) Network was held virtually on 6 December 2021. The meeting was organized by ITU and virtually hosted by the Digital Bridge Institute, Nigeria. It was attended by 25 participants including Centres of Excellence (CoEs), representatives of ITU Member states, the ITU Secretariat and other agencies. The list of participants is attached to this report (Annex 1).

Ms. Anne-Rachel Inné, the Director for ITU Regional Office for Africa, in her opening remarks welcomed all participants to the Steering Committee meeting and thanked our Centers of Excellence and the Steering Committee members for being able to successfully self-organize and adapt to the new reality during the difficult period due to COVID-19 pandemic. She acknowledged that it is still a difficult journey to change the way things were being done for a very long time and effectively transition to delivering courses online.

She encouraged CoEs to take advantage of the opportunities that came with the unplanned and rapid move to online learning that have been forced on us by this pandemic and make efforts to reach many training beneficiaries across Africa and beyond that are increasingly attending our courses without necessarily incurring travel expenses.

She highlighted that this Steering Committee meeting at the end of the year is an excellent occasion to reflect on what CoEs have been able to accomplish in 2021 and solidify the plans for 2022 and going forward.

She emphasized on a couple aspects that she wants the CoEs to put into consideration:

Relevance of CoE courses: she asked CoEs to consistently ensure that their courses are still relevant and continually adapt them to new realities and needs of member states in terms of skills and capacity development.

Strategic promotion plans: she urged CoEs to solidify their promotion plans for their courses to reach out not only to those that their courses are targeting but also those that can bring their constituencies and financial resources such as UN agencies and other regional organizations. She also encouraged CoEs to take advantage and embrace growing online social media marketing platforms and tools to promote their online courses.

Partnerships: She encouraged CoEs to think about potential partnerships that they can create individually and collectively by looking at who else is offering those courses all over the world and think how they can partner with them. She mentioned that other UN and various other agencies are also extending their footprint into new and emerging technologies and CoEs must look out for partnerships and ITU is ready to facilitate and make these partnerships possible.

She concluded her remarks by reiterating ITU's full commitment to providing continued support to the Centres of Excellence in implementing their various important ICT training activities to ultimately enhance ICT competencies of member states in Africa.

Ms. Nur Sulyna Abdullah, Chief of the Digital Knowledge Hub Department, ITU/BDT opened her remarks by greeting all participants (Steering Committee members, ITU colleagues, the ITU Regional Director for Africa and representatives of member states). She first apologized for the technical difficulties experienced that delayed the start of the meeting and she expressed her delight to be able to participate and speak in this Steering Committee meeting.

She reiterated that during the previous meeting, the focus was on how COVID-19 pandemic forced CoEs to move from face-to-face to online training delivery, the challenges that came along with this unplanned move, and the need to put more efforts into promotional and marketing activities.

She stated that unfortunately the pandemic shows no signs of slowing down as new variants keep on emerging despite many people getting the vaccines, which means that we should expect that the online mode of training delivery will continue to be the main mode of training delivery.

She pointed out that things will likely never go back to being face-to-face fully again and that as a network of CoEs regardless of the mode of delivery, we need to be strategic about our approach. She further said that our targeted audience that includes policy makers, regulators, and professionals hold the key to digital transformation globally and as such CoEs have a pivotal role to play in providing the required training and capacity development that this group needs to facilitate economic growth and development that is increasingly becoming inseparable from the digital transformation.

Her remarks also emphasized on two following important strategic updates:

Final year of the CoE cycle: She reminded the CoEs that 2022 will be a final year of the CoE cycle and urged them to pull out all the stops towards the finish line, challenge themselves to do better than they have been doing. She reiterated that this meeting is to take stock of the past 11 months, to look at what worked and what didn't and see how we can up out game to make sure we can cater for the strategic needs of our target audience.

CoE proramme strategic review: She provided updates on the strategic review of the CoE programme that is being done by the ITU this year based on the WTDC resolution 73 on the CoE programme that called for such a review at WTDC-17 in Buenos Aires. She said that in brief the review has been progressing well and will conclude this month and reassured the CoEs that the inputs they provided during the feasibility study interviews as well as during their discussions on this review will be taken into consideration. She hinted that the review would provide the recommendations which may require some changes in the CoE programme

She conveyed a very special thank you to the outgoing Chair, Dr. Kaleem Usmani (Head of CERT and NCB CoE focal point, Mauritius) for the taking the helm and passing it on in a such good stead. She also welcomed and thanked the incoming chair, Engr. Prof. Mohammed Ajiya (President/CEO, Digital Bridge Institute, Nigeria) for accepting to take over the role of the chair.

She lastly underlined the importance of the CoEs and thanked them for their commitment to the CoE programme which is invaluable to the ITU and reiterated that through collaboration with partners such CoEs, ITU can achieve its mandate to strengthen the capacity of ITU member states.

She concluded by recognizing and acknowledging the strategic importance of capacity development in the digital sector and reassured ITU's commitment to continued support and collaboration.

CONFIRMATION OF THE COE STEERING COMMITTEE CHAIR

Ms. Inné, the ITU Regional Director invited the meeting to confirm the new Steering Committee Chair nominated by the virtual host country, Nigeria as per stipulations of the CoE operational guidelines, that is Engr. Prof. Mohammed Ajiya. The meeting confirmed Engr. Prof. Mohammed Ajiya, President/CEO, Digital Bridge Institute (DBI), Nigeria as the new Chair of Steering Committee for ITU Centres of Excellence for Africa region for the coming year.

Ms. Inné congratulated and thanked Engr. Prof. Mohammed Ajiya for agreeing to chair the Steering Committee for what is going to be a remarkable year and she said that she was very confident that he would do a superb job in stirring us to the new heights we would like to achieve. She asked him and other Steering Committee members to reach out to her and ITU Regional Office should they seek any further guidance or support.

Mr. Paulinus Okey Ugwoke, Head of Research, Education & Training Department, DBI stepped in on behalf of the new Chair who was still experiencing technical problems to connect and thanked ITU for considering DBI to chair the Steering Committee meeting and appreciated the excellent work accomplished by the outgoing Chair, Dr. Kaleem Usmani during the period of his chairmanship.

He acknowledged that DBI and Nigeria Communications Commission (NCC) benefited so much from the great ITU's work of capacity development in ICTs and Telecommunications in Africa and going forward DBI will try its best to make sure the standard of ITU is sustained during the year DBI is going to chair the Steering Committee and keep the same momentum irrespective of some of the challenges being faced due to COVID-19 pandemic.

1. UPDATE ON COE STRATEGIC ISSUES

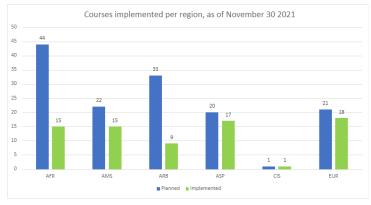
Ms. Susan Teltscher (Head of Capacity and Digital Skills Development, ITU) greeted all participants and apologized for a delayed start of the meeting due to technical challenges. She then introduced and gave updates on a couple of strategic items relating to the implementation of the CoE programme as follows:

i. Global performance of the CoEs for the year

Steering Committee Meeting for Centres of Excellence Network for Africa

Global performance of the CoEs for the year

Courses planned vs implemented per region, November 30 2021



Total planned vs implemented: 141:75

Not implemented: 66

4



She said that as usual at the end of the year, ITU gives an overview of the courses that were planned and those that were implemented per year and this is as of 30 November, given that there are few courses to be implemented this year.

She highlighted a few discrepancies between number of planned courses and number of implemented courses, 141:75, many courses were not implemented and in particular for Africa region but also Arab Region.

She indicated that in this meeting, we would like to hear the issues experienced by some of the CoEs that were not able to implement their courses as planned, brainstorm on these issues and tackle them together. Below are some of those issues:

- Too many courses planned which could not be delivered. Some CoEs have very low implementation rates
- CoEs are expected to deliver the minimum requirements (2 courses per priority area)
- CoEs are expected to engage actively (including participation in SC meetings)
- CoEs that are continuously non-performing will not be considered for the next cycle

ii. CoE strategic review

She informed CoEs and other participants that the meeting that the consultant commenced work in September 2021 and will complete work at the end of 2022.

The following work has been done by the consultant:

- Review of CoE network documents
- Consultative meetings with ITU (HQ and Regional Offices)
- Consultations with CoEs and GCBI members
- Review of information CoEs provided for the Feasibility study

She also pointed out that the strategic review will provide recommendations on the ITU CoE strategy and propose changes to the future operations of the CoE network, and that in the next year's WDTC-21, Resolution 73 will be revised taking into consideration the outcome of the strategic review.

iii. End of cycle activities

She highlighted the activities planned for the end of year cycle:

- Performance evaluation process to be initiated based on the course delivery during the cycle.
 This will cover:
 - Implementation of courses over the four years
 - Measures taken to address the mid-cycle concerns raised, where applicable
 - Promotional strategies and efforts made to ensure courses have participants
 - Participation in Steering Committee meetings and other CoE activities organised by ITU
- Performance scores will be taken into consideration for those CoEs who may wish to apply to be part of the next cycle
- A CoE feedback form will be sent out to all active CoEs to evaluate their experience during the current cycle

iv. 2022 CoE webinars

She also gave updates about CoE webinars planned next year

- Over 50% stated that they prefer the webinar to be once every 6 months.
- The survey showed a 50/50 tie on the global vs regional webinars.
- Over 75% stated that the webinars should cover both subject-specific topics and methodology-focused topics.
- For webinar topics on methodology answers were narrowed down to:
 - Social media marketing and promotion, including engagement with participants during and post course delivery.
 - Trends and best practices of online training, including e-learning techniques and pedagogical strategies.
- For subject-based webinar topics the following topics were prioritized:
- IOT, 5G, Cybersecurity, Artificial Intelligence, Beyond 5G.
- Based on this, ITU will plan for two webinars next year (1 in the first half and 1 in the second half of the year)

2. REVIEW OF IMPLEMENTATION OF 2021 ACTIVITIES & PRESENTATION OF TRAINING PLANS FOR 2022

Presentation by ITU (Regional Office)

Mr. Emmanuel Niyikora, Capacity and Skills Development Regional Focal Point, gave a summary and status of the 2021 training implementation for ITU CoEs for Africa Region. He showed the statistics of 2021 training implementation for CoEs as follows:

• For 2021, 37 Training courses were planned / 15 Trainings Implemented, which gives roughly a 41% implementation.

He highlighted that it might look like a low percentage of implementation rate, but that there is a significant improvement compared to the previous year 2020 which saw only 34% of courses being implemented because COVID-19 forced CoEs to transition from face-to face to online courses.

• For 2021, 1,123 registered participants, 246 certified, 21% certification rate, which is still very low.

He highlighted that there are several courses that were cancelled, and others postponed, on one hand due to the decision by ITU prohibiting face-to-face training programmes until the situation of COVID-19 has improved. On the other hand, due to ongoing process of transitioning from face-to-face to online training delivery mode.

He encouraged CoEs to continue improving their expertise in designing and delivering online courses to reach as many participants as possible across Africa and beyond. He also brought to the attention of CoEs that there an increasing number of participants from Africa are participating in CoE online courses including courses delivered by CoEs in other regions mostly Europe.

Presentations by Centres of Excellence

Before the presentations by CoEs, the new chair, Engr. Prof. Mohammed Ajiya announced his presence in the meeting and introduced himself and took over to chair the meeting.

Centres of Excellence talked about their detailed 2021 activity reports including challenges faced in the implementation of training courses and made some recommendations for improvement and presented their training plans for 2021.

African Advanced Level Telecommunications Institute (AFRALTI), Kenya

Mr. Jonathan Mwakijele, Head, Management, Policy and Regulatory Unit, AFRALTI, before making his presentation acknowledge the presence of Ms. Patricia Kemei (National Communication Authority, Kenya), AFRALTI's host country. Ms. Patricia greeted and commended the outstanding work that AFRALTI is doing in building competences of its members states and other African countries, and congratulated Engr. Prof. Mohammed Ajiya for his appointment as a Chair of the Steering Committee of the CoEs in Africa Region.

Mr. Jonathan Mwakijele made a presentation that focused on the courses that were implemented in 2021 and training plan for 2022.

Implementation status of activities for 2021

| Year | CoE | Courses planned | Delivery mode | Original dates | Final dates | Status | Number of participants registered | Number of participan ts certified | End-of training reports |
|------|---------|---|---------------|----------------|-------------|-------------|-----------------------------------|---|-------------------------------|
| 2021 | AFRALTI | Economic and Market-Based Methods of Radio Frequency Spectrum Management | online | 1-Feb-21 | 26-Feb-21 | implemented | 51 | 49 | received |
| 2021 | | Les méthodes économiques et le marché basés sur la gestion du spectre des fréquences radio | online | 1-Feb-21 | 26-Feb-21 | implemented | 45 | 43 | received |
| 2021 | AFRALTI | Digital Broadcasting Content Regulation in a Converged IP Environment | online | 22-Mar-21 | 16-Apr-21 | implemented | 3 | 3 | received |
| 2021 | AFRALTI | Radio Frequency Spectrum Economy and Market Valuation | online | 16-Aug-21 | 10-Sep-21 | cancelled | | | |
| 2021 | AFRALTI | Digital Broadcasting Masterclass | online | 7-Jun-21 | 2-Jul-21 | cancelled | | | |
| 2021 | AFRALTI | Economic and Market-Based Methods of Radio Frequency Spectrum Management(2nd Intake) | online | 2-Aug-21 | 27-Aug-21 | cancelled | | | |
| 2021 | AFRALTI | Digital Broadcasting Regulation in a Converged IP Environment (2nd Intake) | online | 11-Oct-21 | 5-Nov-21 | implemented | 4 | 4 | received |
| 2021 | AFRALTI | Broadcast Spectrum Management | online | 1-Nov-21 | 26-Nov-21 | cancelled | | | |

- In 2021, 8 courses were planned, of which 4 were successfully implemented
- The first course on Economic and Market-Based Methods of Radio Frequency Spectrum
 Management was delivered in both English and French with the support from ESMT. AFRALTI
 designed the course and delivered it for English speaking countries. ESMT translated the
 course into French and delivered it for French speaking countries. The course was fully
 sponsored by African Telecommunications Union (ATU) for participants from its member
 states, and each country was given 2 slots.
- Two more courses were implemented and remaining 4 were not implemented mainly due to lack of interested participants. The challenge highlighted is the high fees that prevent interested participants from registering into their courses.

Training Proposal for AFRALTI 2022

| Year | СоЕ | Courses planned | Priority area | Delivery mode | Start date | End date | Fee |
|------|---------|---|--|--------------------------|---------------|-------------|-----|
| 2022 | AFRALTI | Satellite Coordination Procedures and Fillings | Spectrum Management and Digital Broadcasting | online instructor-led | 10 January | 04 February | 520 |
| 2022 | AFRALTI | Digital Broadcasting Regulation in a Converged IP Environment | Spectrum Management and Digital Broadcasting | online instructor-led | 7th February | 4th March | 960 |
| 2022 | AFRALTI | Economic and Market Tools of Spectrum Management | Spectrum Management and Digital Broadcasting | online instructor-led | 04 April 2022 | 29 April | 960 |
| 2022 | AFRALTI | Digital Broadcasting Masterclass | Spectrum Management and Digital Broadcasting | online instructor-led | 01 August | 26 August | 960 |
| 2022 | AFRALTI | Socio-Economic Impact of Spectrum Regulation; Competition and Consumer Protection | Spectrum Management and Digital Broadcasting | online instructor-led | 31 October | 25 November | 960 |

- 5 courses are planned for 2021 and the 1st course on Satellite Coordination Procedures and Fillings will again be sponsored by African Telecommunications Union (ATU) and they are expecting 49 member states to participate, and each given 2 slots, making a total of 98 expected participants. They are working closely with ESMT to support the candidates from French speaking countries. They are working with experts from Switzerland and India, former ITU staff with competences to deliver this course.
- Other courses are reconducted from this year to next year because there is a demand on the market and 10 participants are expected for each course.
- Courses outlines were already submitted to ITU, and they are waiting for the approval so that they can start the process of marketing

Digital Bridge Institute (DBI), Nigeria

DBI (Mr. Paulinus Okey Ugwoke, Head, Research, Education & Training Department) gave a brief introduction of the institute and talked about DBI's training implementation for 2021 and training plan for 2022.

Implementation status of 2021 activities

| Year | CoE | Courses planned | Delivery mode | Final delivery mode | Original dates | Final dates | Status | Number of participants registered | Number of participa nts certified | End-of training reports |
|------|-----|---|---------------|------------------------|----------------|-------------|-------------|-----------------------------------|---|-------------------------------|
| 2021 | DBI | International Computer Driving License (ICDL) - workforce modules | blended | | 26-Apr-21 | 30-Apr-21 | Cancelled | | | |
| 2021 | DBI | Virtual Communication and Infographics | online | | 9-Aug-21 | 20-Aug-21 | implemented | 8 | 7 | received |
| 2021 | DBI | Social Media Analytics and Management | online | | 6-Sep-21 | 17-Sep-21 | implemented | 25 | 20 | received |
| 2021 | DBI | Cyber Forensics and IT Risk Management | online | | 11-Oct-21 | 22-Oct-21 | implemented | 18 | 17 | received |
| 2021 | DBI | Cyber Forensics and IT Risk Management | face-to-face | | 25-Oct-21 | 29-Oct-21 | Cancelled | | | |
| 2021 | DBI | Emerging Cybercrime Trends: Cybercrime Investigation & Mobile Forensics | face-to-face | online | 22-Nov-21 | 3-Dec-21 | implemented | 14 | | |

- In 2021, 6 courses were planned, of which 4 were successfully implemented
- The first course was a blended course, partly online and partly face to face but due to covid-19 they could not run it face-to-face, and it was cancelled. It was a missed opportunity because they had one state government that was ready to sponsor about 200 of its participants.
- 3 courses initially planned as online courses in the first semester were successfully delivered
 in the second semester. A course on "Cyber Forensics and IT Risk Management" initially
 planned to be conducted face-to-face was cancelled due to the adjustment made in the
 training plan. The last course on "Emerging Cybercrime Trends: Cybercrime Investigation &
 Mobile Forensics" initially planned online was converted into an online course and it was
 delivered from 22nd November up to 3rd December.
- He highlighted a very interesting experience during delivery of these courses online, 2 of them attracted international participants from Ghana Communication Authority.

- One of the challenges experienced is the difficulties of guiding and supporting participants online
 during practical sessions. Sometimes tutors need to see what they are doing to be able to assist
 them and this is not easy when you have 15 or more participants in the same online class. These
 challenges were not anticipated, there were learnt during the delivery of the courses.
- They also had issues related of internet connectivity because some parts of the country still don't have reliable internet infrastructure.
- Another challenge they faced is that it was difficult to motivate online students because due to
 internet connectivity issues, they switch off their cameras and you can't see them to know if they
 are following or not.
- On the other hand, the advantage is that they were able to reach international participants which increased the number of participants in their courses.
- He also asked ITU to consider allowing CoEs to run blended courses so that participants can get opportunities to have hands-on practical sessions.
- He made another observation that some of government professionals in Nigeria and other African
 countries want to leave their working environment and go in a separate location with no office
 distractions, to have a physical experience of the training but also get travel benefits that they are
 not entitled to when they take courses online.

Training Proposal for DBI 2022

| Year | CoE | Courses planned | Priority area | Delivery mode | Start date | End date | Fee |
|------|-----|---|---|-----------------------|----------------------|------------------------|--------|
| 2022 | DBI | Virtual Communication and Infographics | Cybersecurity and Innovation & Entrepreneurship | online instructor-led | 7 February | 18 February | 150USD |
| 2022 | DBI | Cyber Forensics and IT Risk Management | Cybersecurity and Innovation & Entrepreneurship | online instructor-led | 14 March | 25 March | 150USD |
| 2022 | DBI | Social Media Analytics and Management | Cybersecurity and Innovation & Entrepreneurship | online instructor-led | 9 May 17 October | 20 May 28 October | 150USD |
| 2022 | DBI | Emerging Cybercrime Trends: Cybercrime Investigation and Mobile Forensics | Cybersecurity and Innovation & Entrepreneurship | online instructor-led | 30 May 7 November | 10 June 19 November | 150USD |

- 6 courses in total are planned for 2022 with 2 last courses to be delivered in two intakes.
- They are planning to push and promote these courses to make them attractive and to participants and organizations in Nigeria and other West African Countries.

Ecole Supérieure Africaine des Technologies de l'Information et de la Communication (ESATIC), Côte d'Ivoire

Mr. Rodolphe Kossonou, Head of training and continuous Education after congratulating the new chair for his election and thanking ITU staff for their support during 2021, he made the presentation of the implementation of activities for 2021 and training plan for 2022.

Implementation status of activities for 2021

| Year | СоЕ | Courses planned | Delivery mode | Final delivery mode | Original dates | Final dates | Status | Number of participants registered | Number of participa nts certified | End-of training reports |
|------|--------|---|---------------|------------------------|----------------|-------------|-----------|-----------------------------------|---|-------------------------------|
| 2021 | | Gestion des risques liés à la sécurité de l'information (Norme ISO/IEC 27005 : Risk manager) | face-to-face | online | 10-Mar-21 | 12-Mar-21 | Cancelled | | | |
| 2021 | ESATIC | Sécurité du Cloud | face-to-face | online | 3-May-21 | 7-May-21 | Cancelled | | | |
| 2021 | ESATIC | Sécurité des applications des services bancaires | face-to-face | | 7-Jun-21 | 11-Jun-21 | Cancelled | | | |
| 2021 | ESATIC | Conception des réseaux d'accès optiques | face-to-face | online | 22-Mar-21 | 26-Mar-21 | Cancelled | | | |
| 2021 | | Comprendre l'Internet des Objets (IoT): Principes, Normes, Ecosystème et opportunités économiques | face-to-face | online | 19-Apr-21 | 23-Apr-21 | Cancelled | | | |
| 2021 | ESATIC | Les Systèmes embarqués pour l'Internet des Objets (IoT) | face-to-face | online | 6-Dec-21 | 20-Dec-21 | Cancelled | | | |
| 2021 | ESATIC | La Protection des données à caractère personnel | online | | 6-Sep-21 | 20-Sep-21 | Cancelled | | | |
| 2021 | ESATIC | 5G: Technologies et opportunités économiques | online | | 15-Nov-21 | 27-Nov-21 | Cancelled | | | |

- 8 courses were planned in 2021, 6 face-to-face and 2 online; all of them were not implemented.
- Following a communication from ITU to deliver courses online, 6 courses initially planned faceto-face were converted into online courses, but none of them was implemented online due to lack of interested participants despite making efforts to communicate to and approach organizations/operators that have been participating in their face-to-face courses.
- The same organizations that resisted to register for online courses waited and enrolled into
 other similar but face-to-face courses such as "Conception des réseaux d'accès optiques",
 because they consider hands-on practical sessions important part of the training. They believe
 that the practical aspects of the courses such as fiber optic cannot be covered and provided
 with online courses.
- ESATIC managed to conduct face-to-face courses under its non-CoE capacity development programmes and they had many participants that registered and followed these courses that are like CoE courses.
- When ESATIC introduced online courses, they noted a resistance to change from organizations/operators that usually participate in their face-to-face courses.
- They continue to educate organisations and institutions that participate in their courses, the advantages of online courses and especially during the disruptions and challenges related to COVID-19

Training Proposal for ESATIC 2022

| Year | CoE | Courses planned | Priority area | Delivery mode | Start date | End date | Fee |
|------|--------|--|---|-----------------------|-------------|-------------|--------|
| 2022 | ESATIC | Les Systèmes embarqués pour l'Internet des Objets (IoT) | Cybersecurity, Wireless & Fixed Broadband and Internet of Things | online instructor-led | 01 avril | 15 avril | 150USD |
| 2022 | ESATIC | Gestion des risques liés à la sécurité de l'information | Cybersecurity, Wireless & Fixed Broadband and Internet of Things | online instructor-led | 09 mai | 21 mai | 150USD |
| 2022 | ESATIC | 5G: Technologies et opportunités économiques | Cybersecurity, Wireless & Fixed Broadband and Internet of Things | online instructor-led | 13 juin | 25 juin | 150USD |
| 2022 | ESATIC | Conception des réseaux d'accès Optiques | Cybersecurity, Wireless & Fixed Broadband and Internet of Things | face-to-face | 18 juillet | 22 juillet | 880USD |
| 2022 | ESATIC | Comprendre l'Internet des Objets (IoT): Principes, Normes, Ecosystème et opportunités économiques | Cybersecurity, Wireless & Fixed Broadband and Internet of Things | face-to-face | 21 novembre | 25 novembre | 880USD |
| 2022 | ESATIC | Sécurité du cloud | Cybersecurity, Wireless & Fixed Broadband and Internet of Things | face-to-face | 17 octobre | 21 octobre | 880USD |

- 6 courses are planned for 2022, 3 face-to-face and 3 online courses
- With considerations that the 1st semester will still be impacted by COVID-19, they planned the
 first 3 courses to be delivered online, and the 3 last courses to be delivered face-to-face hoping
 that COVID-19 will have slowed down. They have already received interests from
 organizations willing to participate in the face-to-face courses.
- Prof. Konate Adama, director general of ESATIC intervened and indicated that the numbers
 were not given for courses ESATIC delivered face-to-face and which are unfortunately not
 accepted by ITU. He stated that ESATIC trained 24 participants on broadband, 35 on
 cybersecurity and they have a request to train 165 participants on fiber optic, all these courses
 being delivered face-to-face.
- He said that he would like to plead that the hybrid mode of training delivery, online and faceto-face be allowed by ITU.
- He emphasized that the three courses planned in the 2nd semester require hands-on practical sessions that are not yet designed and integrated into online courses; and he pleaded that ITU consider allowing these courses to be delivered in a hybrid mode so that participants can have opportunities to perform practical activities of the courses.

Ecole Supérieure Multinationale des Télécommunications (ESMT), Senegal

Dr. André Onana, the Chief of ESMT Management Department first introduced ESMT which is an institution of higher learning established by West Africa member states and will celebrate a 40th anniversary this year. He presented the implementation status of activities for 2021 and the training plan for 2022.

Implementation status of activities for 2021

| Year | CoE | Courses planned | Delivery mode | Original dates | Final dates | Status | Number of participants registered | Number of participan ts certified | End-of training reports |
|------|------|--|---------------|----------------|-------------|-------------|-----------------------------------|---|-------------------------------|
| 2021 | | Les méthodes économiques et le marché basés sur la gestion du spectre des fréquences radio | online | 1-Feb-21 | 26-Feb-21 | implemented | 45 | 43 | |
| 2021 | ESMT | Informatique de l'audiovisuel : Transport, virtualisation et stockage | Online | 3-May-21 | 19-May-21 | cancelled | | | |
| 2021 | ESMT | TNT : Les aspects techniques, planification et services | online | 21-Jun-21 | 25-Jun-21 | cancelled | | | |
| 2021 | ESMT | Cadre réglementaire pour les services financiers numériques et les FinTechs | online | 29-Nov-21 | 17-Dec-21 | Implemented | 10 | | |
| 2021 | ESMT | Management de projets digitaux : approches waterfall et agile (SCRUM) | online | 5-Jul-21 | 10-Jul-21 | cancelled | | | |
| 2021 | ESMT | Gestion avancée du spectre pour la 5G | online | 1-Jun-21 | 29-Jun-21 | cancelled | | | |
| 2021 | ESMT | Applications et Modèles Economiques de la Blockchain | Online | 1-Nov-21 | 26-Nov-21 | cancelled | | | |
| 2021 | ESMT | Traitement distribué dans le Big Data | Online | 1-Dec-21 | 17-Dec-21 | cancelled | | | |

- 6 courses were planned for 2021, only 2 were implemented.
- The first training on « Les méthodes économiques et le marché basés sur la gestion du spectre des fréquences radio » was delivered in collaboration with AFRALTI.
- The second training on « Cadre réglementaire pour les services financiers numériques et les FinTechs » was delivered to participants from the regulator in Congo Brazzaville.
- The context did not allow them to deliver most of the course mainly due to lack of registered participants to justify running the courses.
- He suggested that CoEs with ITU, should work together to establish partnerships with regulators who are most of the time the clients of CoEs training courses.

Training Plan for ESMT 2022

| Year | CoE | Courses planned | Priority area | Delivery mode | Start date | End date | Fee |
|------|------|--|---|-----------------------|------------|------------|--------|
| 2022 | ESMT | Réussir la transformation digitale de son organisation | Digital Broadcasting, Spectrum Management and Digital Economy | online instructor-led | 8 mars | 29 mars | 312USD |
| 2022 | ESMT | Traitement distribué du Big Data | Digital Broadcasting, Spectrum Management and Digital Economy | face-to-face | 11 avril | 15 avril | 453USD |
| 2022 | ESMT | Informatique de l'audiovisuel : transport, virtualisation et stockage | Digital Broadcasting, Spectrum Management and Digital Economy | face-to-face | 13 juin | 17 juin | 453USD |
| 2022 | ESMT | Gestion avancée du spectre pour la 5G | Digital Broadcasting, Spectrum Management and Digital Economy | face-to-face | 11 juillet | 15 juillet | 312USD |
| 2022 | ESMT | Cadre réglementaire des services financiers numériques et des FinTechs | Digital Broadcasting, Spectrum Management and Digital Economy | online instructor-led | 3 octobre | 29 octobre | 312USD |
| | | Opérations Mobile Money | Digital Broadcasting, Spectrum Management and Digital Economy | | | | 312USD |

- For 2022, they would like to come back to a mix of face-to-face and online courses
- 6 courses are planned for 2022, 3 face-to-face and 3 online courses
- The 3 face-to-face courses are courses that are technical in nature which very often require practical work that must be done in laboratories. They hope to be able to deliver these courses face-to-face.
- They will continue to make efforts to deliver courses online because it is the new reality and future mode of learning and teaching, reason why they proposed 3 online courses.

- Mr. Adamou Moussa Saley/DG ESMT took the opportunity to thank all participants and congratulated madame Anne-Rachel on her appointment as the ITU Regional Director for Africa, and the President/CEO for his election as the Chair of the Steering Committee of the CoE network.
- He highlighted the underperformance in implementing CoEs assigned objectives due to the
 current context but insisted that CoEs will continue to make efforts. For ESMT, they invested
 into online and traditional promotion and marketing of their courses, unfortunately things did
 not turn out the way we wanted, but they will continue in this trend.
- He finished his intervention hoping that next year's results will be much better, thanked ITU
 and said that he remains convinced that the combined efforts will allow us to achieve our
 objectives.

National Computer Board (NCB), Ile Mauritius

Dr Kaleem Usmani, Head of Computer Emergency Response Team of Mauritius (CERT-MU), as the outgoing Chair, he welcomed and congratulated the new Chair of the Steering Committee, Engr. Prof. Mohammed Ajiya. He greeted and thanked the ITU team, and all other Steering Committee members for their active engagement during the year. He then made the presentation of 2021 activities and training plan 2022.

Implementation status of activities for 2021

| Year | СоЕ | Courses planned | Delivery mode | Original dates | Final dates | Status | Number of participants registered | Number of participan ts certified | End-of training reports |
|------|-----|---|---------------|----------------|-------------|-------------|-----------------------------------|---|-------------------------------|
| 2021 | NCB | Cyber Disaster Response: Development of Simulation Exercises | online | 21-Apr-21 | 23-Apr-21 | Implemented | 225 | 25 | received |
| 2021 | NCB | An Introduction to Developing National Cyber Emergency Response Plans | online | 18-Aug-21 | 20-Aug-21 | Implemented | 217 | 40 | received |
| 2021 | NCB | Building an effective cybersecurity team | online | 24-Nov-21 | 26-Nov-21 | Implemented | 448 | | |

- 3 training courses were proposed, and all of them were successfully implemented.
- Their courses are interesting and free of charge, and as result they attract high number of registrations but there are also some challenges such as:
 - A high number of registrations from Africa and beyond, but a low number of participants show up and go through the courses to the end.
 - Number of certified participants is very low.

Training Proposal for NCB 2021

| Year | СоЕ | Courses planned | Priority area | Delivery mode | Start date | End date | Fee |
|------|-----|---|---------------|-----------------------|-------------|-------------|------|
| 2022 | NCB | Introduction to Digital Forensics | Cybersecurity | online instructor-led | 13 April | 15 April | Free |
| 2022 | NCB | Cybersecurity Techniques: A Hands-On Approach (August) | Cybersecurity | online instructor-led | 17 August | 19 August | Free |
| 2022 | NCB | Building an Effective Cyber Incident Response Team | Cybersecurity | online instructor-led | 16 November | 18 November | Free |

- NCB is proposing 3 training programmes in 2022, to be delivered online and free of charge.
- They are running all the courses free of charge so that more interested participants can benefit. They are also considering running some courses face-to-face in the future.

Ecole Nationale Supérieure des Postes, des Télécommunications et des TIC (SUP'PTIC)

Ms. Anne Chantal Mvogo, Chief of Cooperation and Research thanked ITU team for the unparalleled support provided to SUP'PTIC throughout the training delivery of the training courses. She then presented the implementation status of 2021 activities.

Implementation status of activities for 2021

| Year | CoE | Courses planned | Delivery mode | Original dates | Final dates | Status | Number of participants registered | Number of participan ts certified | End-of training reports |
|------|----------|--|---------------|----------------|-------------|-------------|-----------------------------------|---|-------------------------------|
| 2021 | SUP'PTIC | Gouvernance et sécurité de l'internet | online | 5-Apr-21 | 2-May-21 | Implemented | 7 | 4 | Received |
| 2021 | SUP'PTIC | Régulation des services financiers : Fondamentaux des microfinances et de la FINTECH | online | 19-Apr-21 | 16-May-21 | Implemented | 10 | 9 | Received |
| 2021 | SUP'PTIC | Transactions électroniques et la Monétique | online | 18-Oct-21 | 14-Nov-21 | Implemented | 31 | | |
| 2021 | | La blockchain : Fonctionnement et Applications (previously Applications et modèles économiques de la BlockChain) | online | 26-Oct-21 | 29-Oct-21 | cancelled | | | |
| 2021 | SUP'PTIC | Enjeux techniques et juridiques de la large bande fixe et mobile | face-to-face | 16-Nov-21 | 19-Nov-21 | cancelled | | | |

- 5 training courses were planned in 2021, of which 3 were implemented, 2 were not and were rescheduled for 2022.
- She underlined on one hand weaknesses, on the other hand strengths of SUP'PTIC trainers.

Challenges experienced

- Organizations and administrations expected face-to-face courses because their strategy is that
 a face-to-face course takes for 4 days, so they send their staff on a mission for 4 days to
 undergo training and return to work after 4 days. When training courses are migrated online,
 it becomes complicated for these administrations.
- Administrations are also experiencing a problem with payments because they have complex payment procedures, they often wanted to attend the courses but unfortunately, they couldn't register due to lack of payments.
- Another challenge is that their experts are technically competent in the subjects but lacking expertise in delivering courses online.

Strengths observed

- They increased efforts to promote and market their courses having lost some organizations that were attending their courses face-to-face.
- More administrations were interested to register their participants, and courses were being postponed accommodating those participants but unfortunately some of them couldn't register due to payment difficulties.
- 3 courses implemented with a smaller number of participants than expected.

Training Proposal for SUP'PTIC 2022

Armelle Manko, Head of Quality Assurance and Standards Departmen / SUP´PTIC presented the training proposal for 2022.

| Year | СоЕ | Courses planned | Priority area | Delivery mode | Start date | End date | Fee |
|------|----------|--|--|-----------------------|----------------|----------------|--------|
| 2022 | SUP'PTIC | Gouvernance et sécurité de l'internet | Digital Economy, Innovation & Entrepreneurship, Wireless & Fixed Broadband | online instructor-led | Mars 2022 | Mars 2022 | 250USD |
| 2022 | SUP'PTIC | Régulation des services financiers : fondamentaux des micro-finances et de la FINTECH | Digital Economy, Innovation & Entrepreneurship, Wireless & Fixed Broadband | online instructor-led | Avril 2022 | Avril 2022 | 100USD |
| 2022 | SUP'PTIC | Elaboration des politiques efficaces axées sur le développement de la big data dans les pays en développement : cas des infrastructures larges bandes | Digital Economy, Innovation & Entrepreneurship, Wireless & Fixed Broadband | online instructor-led | Juin 2022 | Juin 2022 | 300USD |
| 2022 | SUP'PTIC | Applications et modèles économiques de la BlockChain | Digital Economy, Innovation & Entrepreneurship, Wireless & Fixed Broadband | online instructor-led | Août 2022 | Août 2022 | 250USD |
| 2022 | SUP'PTIC | Les Réseaux d'accès optiques FTTH | Digital Economy, Innovation & Entrepreneurship, Wireless & Fixed Broadband | online instructor-led | Septembre 2022 | Septembre 2022 | 150USD |
| 2022 | SUP'PTIC | Accroissement de l'accès et la connectivité à large bande – Approches technologiques et politiques | Digital Economy, Innovation & Entrepreneurship, Wireless & Fixed Broadband | online instructor-led | Octobre 2022 | Octobre 2022 | 300USD |
| 2022 | SUP'PTIC | Services innovants : Réglementation et Régulation à l'épreuve du numérique | Digital Economy, Innovation & Entrepreneurship, Wireless & Fixed Broadband | online instructor-led | Novembre 2022 | Novembre 2022 | 100USD |

- She first clarified the approach that was adopted by SUP'PTIC at the level of classification and organization.
- Like the other CoES, they also had difficulties with the online courses especially for more technical courses like courses on broadband for example.
- The approach adopted is to convert all the courses in an online format, particularly for the first semester, to propose courses which do not require too many complex technical specificities and to propose for the second semester courses that need technical practices.
- For the first semester, they reconducted 2 courses and proposed one new course.
- The trainings requested by participants as face-to-face are proposed in the second semester
 hoping that by then the situation of the pandemic will make it possible to hold face-to-face
 trainings.

3. APPROVAL OF THE 2022 TRAINING PLAN

Mr. Emmanuel Niyikora presented all training courses proposed by CoEs for 2022. He clarified that one training for ESMT highlighted in yellow is under quality assurance process, and for the 4 courses for SUP´PTIC highlighted in red, the training outlines were not yet received.

The Chair invited the SC members to approve the training catalogue for the coming year 2022 if everyone agrees; and after seeing no objection from SC members, the Chair declared the below training catalogue approved.

The Chair informed the members of the SC that training courses, for which the training outlines were not provided, or which were not already reviewed this year (4 courses for SUP´PTIC); and training courses which require additional time to complete the Quality Assurance Process (one course for ESMT), are not included in the training proposals. The request for approval for these courses will be done through consultations with ITU. The complete training proposals for 2022 is attached as **Annex 3.**

Notes:

- ESATIC is considering revising the prices
- NCB will change the title of the first course to "Digital Forensics Essentials and Investigation Approach" new title needs to go through Quality of Assurance process

Takeaways

The chair summarized the takeaways from the presentations as follows:

- AFRALTI planned 7 courses, 3 were implemented, 4 courses were not implemented, and in 2022, AFRALTI plans to run 5 courses.
- DBI planned 6 courses in 2021, 2 were cancelled, 4 were completed, and in 2022, DBI plans to run 6 courses.
- ESATIC, in 2021, 8 courses were planned, all the courses were cancelled, and in the coming year 2022, 6 courses are planned.
- ESMT planned 7 courses in 2021, 2 were implemented and 5 were cancelled, and in 2022, ESMT plans to run 5 courses.
- NCB planned 3 courses in 2021, they implemented all the courses, but those that got certificates were few, NCB will take note for the 3 courses planned for 2022.
- SUP'PTIC planned 5 courses, 2 were implemented, 3 were cancelled, and in 2022, they plan to run 7 courses.

4. DISCUSSION ON PROMOTIONAL ACTIVITIES CARRIED OUT BY COES AND ITU FOR THE PAST YEAR.

Halima Letamo, Capacity & Skills Development Officer, ITU said that the issue relating to the promotion of courses was discussed during the CoE global meeting and in the previous mid-year steering committee meeting we agreed on a plan to be implemented during the remaining part of the year. She presented a brief overview of ITU's promotional strategy and promotional activities undertaken after last meeting.

Currently CoE courses are promoted by:

- CoEs through the use of the CoEs' selected advertising media
- ITU through the ITU Academy platform

These strategies can be enhanced through:

- use promotion tools that are accessible globally and have a world-wide presence.
- multiple promotional strategies used together to complement each other, increasing the chances of reaching different society segments.
- use strategies based on current technologies to reach the market earlier than other providers and in time for the annual training planning of potential clients.
- Intentionally planning and committing to specific promotional activities annually.

During the mid-year Steering Committee meeting, ITU proposed the following plan, to be implemented and progress reported in this SC meeting.

| Activity | Description | Medium | Impact | Implementer |
|--|--|--|---|-------------|
| include courses as part of events. | If an event is held in X topic, when advertising the event, list the courses linked to that topic which are available on the ITU Academy platform, especially on the event website. | Event webpages and other promotional materials | This will expand the target market for the CoE courses | ITU |
| Promote participation of CoEs in ITU regional and global capacity development events | Provide a space for CoEs to showcase their work at ITU capacity building events. | Events | This will provide a regional and global marketing platform for CoEs as well as opportunities to network | ITU |
| Provide information on review of courses | On the ITU Academy website, provide information on reviews of courses done by attendees for public viewing. | ITU Academy website | This might encourage some participants to take the courses when they are re-run and improve visibility of the outcome of the CoE courses. | ITU |
| Send push messages on upcoming courses | Provide option for visitors of the ITU Academy to indicate their interest in receiving information on future courses. An update is sent to them once a month on the upcoming courses in the areas of interest they indicated. | ITU Academy website, emails | This will allow ITU to send targeted messages to potential participants who have indicated their preferences, thus increasing the chances of enrolment | ITU |
| CoEs to publish reviews of the courses by their respective attendees | CoEs encouraged to ensure end of course evaluations are analyzed, and results shared with ITU for publishing of the ITU Academy website | ITU Academy website | This will encourage other participants to take the CoE courses if they see they are well rated by previous participants | CoEs |
| CoEs to create social media promotional content. | CoEs to create snapshot videos and or ppt slides (social media compatible) of what the course will be about to be used on social media platforms | Videos and ppt slides | This will expand the target market for the CoE courses | CoEs |
| CoEs to use social media to promote courses. | Post at least 1 promotional message per course on 1 social media platform and tag ITU's respective accounts to increase visibility when advertising new courses | Social media platforms | This will expand the target market for the CoE courses | CoEs |
| CoEs to include variety of incentives for taking courses | CoEs can prepare their courses in modular version. If three courses are taken on the same topic one can earn a discount for the third module. Or discount applied for the second course taken with the same CoE e.t.c | Incentives highlighted on course catalogue | This will encourage the participants to return to the same CoE for additional courses | CoEs |
| Use the Steering Committee (SC) platform to plan promotional strategies and monitor progress | As part of the SC agenda, include a session on recommendations for new promotional strategies and report on progress made | SC meetings | Assessing progress on implementing the promotional strategies will allow planning for more strategies or re-aligning if necessary | ITU/CoEs |

She said that today we are coming together to see what we have been able to achieve in relation to this plan, and then proceed to report on the activities implemented by ITU as shown in the table below

Report on promotion activities for ITU

| Activity | Description | List of events | What worked well | Challenges |
|--|---|---|--|--|
| include courses as part of events. | If an event is held in X topic, when advertising the event, list the courses linked to that topic which are available on the ITU Academy platform, especially on the event website. | Workshop on Digital Skills Assessment Guidebook for Africa ILD-ITU Joint programme on Boosting decent jobs for you in the digital economy in Africa, Senehal, Cote d'Ivoire, Kenya and Nigeria ITU Regional Forum for Europe on Meaningful Connectivity Accessible Europe 2021: ITU-EC Forum for Europe ITUR Regional Engagement Roundtable for Europe ITUR Regional Innovation Forum for Europe ITU Regional Innovation Forum for Europe ITU Regional Preparatory Meeting for Asia and the Pacific (RPM-ASP) 09–10 March 2021, Virtual ITU-Industry Meeting for Asia and the Pacific- 27 May, Virtual ITU-Industry Meeting for Asia and the Pacific- 8-9 June, Virtual Digital Skills Assessment Webinar - 13 July 2021 Emerging Technology for Connectivity: Accelerating Digital Transformation in LDCs, LLDCs and SIDS- July 2021 Emerging Technology for Connectivity: Accelerating Digital Transformation in LDCs, LLDCs and India and the Asia-Pacific Region" ITU 2021 Global Cyber Drill for Asia and the Pacific and CIS Interregional Meeting - 15 Septembery, Virtual | Some enquiries on CoE courses which indicate a generation of interest. | Measuring the effectiveness and competition with ICT players in the area of emerging tech space-IoT, AI, Blockchain, etc. |
| Promote participation of CoEs in ITU regional and global capacity development events | Provide a space for CoEs to showcase their work at ITU capacity building events. | Taller Multisectorial sobre el papel de las TIC para el manejo de desastres y la reducción del riesgo 14 al 16 de septiembre 2021 AFR CoE catalogue posted on the events' regional capacity development page Workshop on Digital Skills Assessment Guidebook for Africa ITU Regional Forum for Europe on Digital Skills Development 1. Asia and the Pacific Regional Development Forum-Developing ICT Capacity in Asia and the Pacific- 4th December 2021- IoT Academy 2. 11 September, 10:30 – 12:30, 2021, Virtual Virtual Information Session on Distributed Ledger Technology (including Blockchain)-CAICT | CoEs can prepare a presentation and share what is that they do and their area of expertise | Regional events that target only the stakeholders in the region and do not provide reach to the international market |
| Provide information on review of courses | On the ITU Academy website, provide information on reviews of courses done by attendees for public viewing. | Awaiting CoEs to share testimonials to be uploaded on that page. | Dedicated central place where course praise can be viewed by any visitor of the platform. Greater advertisement not just of the course but also of the CoE. | CoEs need to obtain permission from participants to be featured (inf. required includes picture, name and occupation). |
| Send push messages on upcoming courses | Provide option for visitors of the ITU Academy to indicate their interest in receiving information on future courses. An update is sent to them once a month on the upcoming courses in the areas of interest they indicated. | Regional twitters Monthly course compaigns Regional course catalogues sent out at the beginning of the year | We have established regular users, esp. among regulators and comm. authorities in various countries, who book group enrolments thanks to these reminders. Growing participation from other regions by 50% in the ASP region | Course dates keep changing making newsletter information obsolete or inconsistent. |
| | As part of the SC agenda, include a session on recommendations for new promotional strategies and report on progress made | Done hence this Item in the agenda of the SC meetings. | N/A | N/A |

Update on promotion activities for CoEs

African Advanced Level Telecommunications Institute (AFRALTI)

Ms. Anita Natwati, AFRALTI, gave the updates for AFRALTI summarized in the table below

| Activity | Description | List the names of courses which you promoted using the activity (if none put N/A) | What worked well with this promotion activity? | Which challenges did you face? |
|--|---|---|--|---|
| CoEs to publish reviews of the courses by their respective attendees | CoEs encouraged to ensure end of course evaluations are analyzed, and results shared with ITU for publishing of the ITU Academy website | Economic and Market-Based Methods of Radio Frequency Spectrum Management Digital Broadcasting Regulation in a Converged IP Environment Radio Frequency Spectrum Economy and Market Valuation Digital Broadcasting Masterclass | ITU- Academy website FORAS | none |
| CoEs to create social media promotional content. | CoEs to create snapshot videos and or ppt slides (social media compatible) of what the course will be about to be used on social media platforms | We have done for other courses not courses under ITU CoEs | AFRALTI Website Social media platforms – Facebook, Twitter, LinkedIn, Instagram Email marketing platform – Mail Chimp ITU academy website | none |
| CoEs to use social media to promote courses. | Post at least 1 promotional message per course on 1 social media platform and tag ITU's respective accounts to increase visibility when advertising new courses | Economic and Market-Based Methods of Radio Frequency Spectrum Management Digital Broadcasting Regulation in a Converged IP Environment Radio Frequency Spectrum Economy and Market Valuation Digital Broadcasting Masterclass | AFRALTI Website Social media platforms – Facebook, Twitter, LinkedIn, Instagram Email marketing platform – Mail Chimp ITU academy Website | Despite the high leads from promotions the conversion rate is low due to lack of fultion fees. Lack of social media support from ITU on posts when tagged |
| CoEs to include variety of incentives for taking courses | CoEs can prepare their courses in modular version. If three courses are taken on the same topic one can earn a discount for the third module. Or discount applied for the second course taken with the same CoE e.t.c | | none | none |

DBI (Digital Bridge Institute)

Mr. Paulinus Okey Ugwoke provided updates for DBI summarized in the table below

| Activity | Description | List the names of courses which you promoted using the activity (if none put N/A) | What worked well with this promotion activity? | Which challenges did you face? |
|--|---|---|--|---|
| CoEs to publish reviews of the courses by their respective attendees | CoEs encouraged to ensure end of course evaluations are analyzed, and results shared with ITU for publishing of the ITU Academy website | We did not do this. | | |
| CoEs to create social media promotional content. | CoEs to create snapshot videos and or ppt slides (social media compatible) of what the course will be about to be used on social media platforms | This was done for all three courses. | The number of registrants have increased | No challenge as such in the execution of this activity. |
| media to promote courses. | Post at least 1 promotional message per course on 1 social media platform and tag ITU's respective accounts to increase visibility when advertising new courses | This was done for all three courses. | The number of registrants have increased | No challenge as such in the execution of this activity. |
| CoEs to include variety of incentives for taking courses | CoEs can prepare their courses in modular version. If three courses are taken on the same topic one can earn a discount for the third module. Or discount applied for the second course taken with the same CoE e.t.c | We did not do this. | | |

ESATIC (Ecole Supérieure Africaine des TIC)

Mr. Kossonou Rodolfe briefly gave updates for ESATIC compiled in the table below

| Activité | Description | Donne la liste des cours dont vous avez fait une compagne de commumication à l'aide de cette activité (s'îl n'y en a pas mets N/A) | Qu'est-ce qui a bien marché avec cette activité de promotion ? | Quels sont les défis que vous avez rencontrés? | |
|--|---|--|---|--|--|
| Les CdE publieront les évaluations des cours par les participants | Les CdE sont encouragés à s'assurer que les évaluations de fin de cours sont analysées et les résultats partagés avec l'UIT pour la publication sur le site Web de l'Académie de l'UIT | N/A | N/A | N/A | |
| CdEs créent des contenus à partager sur les réseaux sociaux dans le cadre de promotion des cours | CdEs créent des vidéos engageantes ou diapositives ppt à partager sur les réseaux sociaux décrivant le contenu du cours. | - 5G: Technologies et opportunités économiques - Gestion des risques liés à la sécurité de l'information - Conception des réseaux d'accès Optiques - Comprendre l'Internet des Objets (IoT): Principes, Normes, Ecosystème et opportunités économiques | - Augmentation du nombre interactions avec des personnes intéressées par les formations, (des mails de demande d'information, messages sur les réseaux sociaux) | La réactivité dans les échanges. | |
| CdEs utilisent les réseaux sociaux pour la promotion des cours | Publient au moins 1 message publicitaire sur une plateforme de réseaux sociaux et tag les comptes de réseaux sociaux de l'UIT pour amplifier la visibilité lors de la promotion des cours | - 5G: Technologies et opportunités économiques - Gestion des risques liés à la sécurité de l'information - Conception des réseaux d'accès Optiques | Augmentation de l'interêt pour les formations avec des demandes d'informations sur ce que ITU Academy proposait et les conditions pour participer aux formations | La méconnaissance du programme des centres d'excellences et de la plateforme ITU Academy par de nombreuses personnes et décideurs d'entreprises. | |
| Les centres d'excellence doivent adopter une variété des incitations pour suivre leurs formations. | CdEs peuvent programmer leurs cours en version modulaire. Si 2 cours sont sur le même sujet/thématique, 1 peux bénéficier d'une réduction. Ou une réduction qui s'applique pour les participants qui suivent 2 cours d'un même centre d'excellencee.t.c | N/A | N/A | N/A | |

ESMT (Ecole Supérieure Multinationale des Télécommunications)

Dr. Onana André gave updates for ESMT as listed in the table below

| Activité | Description | Donne la liste des cours dont vous avez fait une compagne de communication à l'aide de cette activité (s'il n'y en a pas mets N/A) | Qu'est-ce qui a bien marché avec cette activité de promotion ? | Quels sont les défis que vous avez rencontrés? |
|--|---|--|--|--|
| Les CdE publieront les évaluations des cours par les participants | Les CdE sont encouragés à s'assurer que les évaluations de fin de cours sont analysées et les résultats partagés avec l'UIT pour la publication sur le site Web de l'Académie de l'UIT | N/A | Nous ne l'avons pas encore fait | Quand nous l'aurons fait, nous pourrons être en mesure de nous prononcer sur les défis |
| CdEs créent des contenus à partager sur les réseaux sociaux dans le cadre de promotion des cours | CdEs créent des vidéos engageantes ou diapositives ppt à partager sur les réseaux sociaux décrivant le contenu du cours. | N/A | Nous ne l'avons pas encore fait | Confectionner les vidéos |
| CdEs utilisent les réseaux sociaux pour la promotion des cours | Publient au moins 1 message publicitaire sur une plateforme de réseaux sociaux et tag les comptes de réseaux sociaux de l'UIT pour amplifier la visibilité lors de la promotion des cours | Applications et modèles économiques de la Blockchain Cadre réglementaire des services financiers numériques et des FinTechs Gestion avancée du spectre pour la 5G | Dans l'ensemble nous avons reçu des feedbacks positifs | Confectionner les flyer Sponsoriser les promotions Absence de community manager |
| Les centres d'excellence doivent adopter une variété des incitations pour suivre leurs formations. | CdEs peuvent programmer leurs cours en version modulaire. Si 2 cours sont sur le même sujet/thématique, 1 peux bénéficier d'une réduction. Ou une réduction qui s'applique pour les participants qui suivent 2 cours d'un même centre d'excellencee.t.c | N/A Par contre nous avons fait un tarif spécial pour les étudiants | Les étudiants ont manifesté de l'intérêt | La communication (trouver les bons canaux et le bon timing) |

NCB (National Computer Board)

Dr. Kaleem Usmani gave briefly updates for NCB as summarized below

| Activity | | List the names of courses which you promoted using the activity (if none put N/A) | What worked well with this promotion activity? | Which challenges did you face? |
|--|---|---|--|---|
| CoEs to publish reviews of the courses by their respective attendees | CoEs encouraged to ensure end of course evaluations are analyzed, and results shared with ITU for publishing of the ITU Academy website | We did not do this. | | |
| CoEs to create social media promotional content. | CoEs to create snapshot videos and or ppt slides (social media compatible) of what the course will be about to be used on social media platforms | This was done for all three courses. | The number of registrants have increased | No challenge as such in the execution of this activity. |
| media to promote courses. | Post at least 1 promotional message per course on 1 social media platform and tag ITU's respective accounts to increase visibility when advertising new courses | This was done for all three courses. | The number of registrants have increased | No challenge as such in the execution of this activity. |
| CoEs to include variety of incentives for taking courses | COEs can prepare their courses in modular version. If three courses are taken on the same topic one can earn a discount for the third module. Or discount applied for the second course taken with the same COE e.t.c | We did not do this. | | |

SUP´PTIC (Ecole nationale supérieure des Postes, des Télécommunications et des Technologies de l'Information et de la Communication)

Ms. Mvogo Anne Chantal provided updates for SUP´PTIC

- They made communications on social networks like Facebook and WhatsApp.
- They promoted the center of excellence during sector meetings and seminars in the country
- They also continued sending direct communication and correspondence to the various entities and potential interested participants likely to register for their trainings.

Challenges

• They need to clearly communicate payment procedures which sometimes act as a barrier for those interested to register to their courses.

 They are also thinking of reviewing a strategy that will facilitate their students to access their courses, as there is always a problem of unaffordable prices to students.

Ms. Halima Letamo told CoEs that they have had their presentations on promotion and marketing of courses, and they have noted what went well and the challenges that they are facing, some of them also reported by CoEs in other regions such as lack of capacity to develop promotional and marketing videos. She promised them that ITU will look into these challenges and get back to them.

5. COE OPERATIONAL ISSUES

Ms. Halima Letamo made a presentation which highlighted the following operational issues:

- Updates on the planning and implementation of courses
- Updates on the transition from face to face to online courses
- Reminders for CoEs

Updates on the planning and implementation of courses

- This year the annual planning has begun earlier than in the previous years due to the QA process
- Some CoEs have submitted their training outlines in time which helped with the planning
- CoEs who have not submitted their outlines for evaluation in time will have their courses not approved during the SC. This will result in:
 - SC approving incomplete training plans for the year which is a waste of SC time
 - Delay in compiling the 6 months/annual training catalogue (both regional and global)
 - Delay in promotion of courses

In the past year

- There were too many course postponements, impossible for HQ to keep track of date changes
- Some CoEs change titles of courses when the courses have been approved. This requires that the course is sent for re-checking by the TP
- Some course topics were outside the mandate of ITU
- Incomplete training outlines were submitted. This means sufficient details were not provided for the TPs to decide on the courses

Updates on the transition from face-to-face to online courses

- All courses on the ITU Academy since March 2020 are now online.
- Some CoEs are still struggling to go fully online due to the nature of their course subjects or due to lack of well-trained tutors, who can manage online delivery.
- Online courses are largely cheaper than face-to-face courses, ranging from 75 USD to 150 USD.
- Some CoEs still run their courses at higher prices and have less participants.
- Most CoEs now use the Moodle Zoom plugin or MS teams when preparing live lectures.

Reminders for CoEs

- Online tutors/trainers must familiarize themselves in advance with the online platform.
- ITU Academy administrators do not create accounts for users and do not enroll participants. Participants should do that on their own.
- The trainers must upload materials, set up quizzes and assignments, forums and chats, and monitor participants, the ITU Academy administrators do not do this. (Trainers can reach out to ITU academy administrators if they need help).
- CoE Coordinators should monitor training and ensure trainers fully engage participants.
- Enrolments for paid courses should occur only after payments are in effect, not before.
- End-of-training report submission, with complete scoring table & financial report, is imperative and should be submitted within a month of the end of the course.

Comments and Interventions from CoEs

 Mr. Jonathan Mwakijele (AFRALTI) thanked ITU for its support to CoEs especially during the migration to online courses and asked ITU to engage CoEs more in many other projects.

- Mr. Adama Konate (ESATIC) said that it is noted in the reports presented by CoEs that Frenchspeaking countries have low execution rate of training programmes compared to English speaking countries which seem to be ahead of them in delivering online courses.
- He reassured ITU that next year, which is the last year of the cycle, ESATIC is going to
 completely change strategies, they are working closely with organizations in the sector that
 every time before the steering committee meeting, select training programmes that they will
 do in the following year. They will approach and encourage them to register for online
 trainings so that they can bring more important figures in the next meeting, and he hoped
 that next year will be better.

6. CLOSING THE MEETING

Ms. Susan Teltscher thanked Engr. Prof. Mohammed Ajiya from DBI for chairing the meeting and accepting to be the chair of the steering committee for the coming year. She commended him for doing a great job to catch up the time that was lost at the beginning and apologized again for the technical glitches at the beginning and thanked. She also thanked everybody including the interpreters as well.

She said that she heard all interventions made by CoEs including the presentations on the courses implemented in 2021, the challenges they faced, training plans for next year, and their inputs on the marketing and promotional activities, thanked them very much for sharing all of this.

She assured CoEs that we will take a close look of the points raised and discuss internally how we can take those into consideration as we move forward with the programme.

She stated that conducting Steering Committee meeting virtually seems to be the normal now, she was very much hoping that this year we could meet in person, but we are yet to go back, and all ITU's meetings are still being held online.

She mentioned that we will see how things evolve in 2022, hoping that face-to-face courses will be delivered again, and she echoed what Halima emphasized on about CoEs investing in online training delivery which is where the future is going. She admitted that it is not easy to change the expectations of the participants, their habits, and the way they are used to take CoEs courses.

She reiterated that the 3 years of CoE cycle have passed very quickly, and have been affected by the pandemic, which at the same time has showed us how important technology is and highlighted the importance that people, citizens and professionals need capacity development in the field of digital technology to be able to use the technologies.

She commended the work CoEs are doing through the CoE programme to train professionals in the field of digital technology, which has become even more important during those challenges times, and encouraged them to continue delivering high quality training. She asked CoEs to reach out to ITU capacity and skills development staff in the region and at HQ whenever they have any specific issues, they will try to help as much as possible.

She lastly thanked all CoES for their active engagement in the programme for the last 3 years of the cycle and urged them to continue also for next year and reassured them of continued ITU's support.

She informed participants that the next meeting will take place in the middle of 2022, and it will be the last opportunity to take stock of the training delivery in the region and discuss outstanding matters before closing the cycle.

She concluded her closing remarks by whishing everybody and their families a great end of the year.

The Chair thanked the ITU team for providing the opportunity for all participants to meet, also implored ITU to continue supporting the CoEs while delivering their courses planned for next year

He also thanked Dr. Kaleem Ahmed Usmani for a wonderful work as an outgoing Chair of the Steering Committee for CoEs in Africa over the last year.

He expressed his biggest appreciation to all Steering Committee members for giving him the opportunity to chair the steering committee meeting in this current cycle, that is mostly affected by the pandemic. He ended his remarks by thanking everybody for the participation, attention and staying together. He declared the meeting closed.

ANNEX 1: LIST OF PARTICIPANTS

The Member States hosting CoEs:

• Ms. Patricia Kerrets-Kemei, Manager/Talent Management & Organization Development, Communications Authority of Kenya

GCBI Members for Africa Region

• Gladys Ogallo, Founder & CEO at Virtual Human Resources Services Ltd

Centres of Excellence:

- Engr. Prof. Mohammed AJIYA, President/CEO, DBI Chair of the Meeting
- Dr. Kaleem USMANI, NCB, Mauritius outgoing Chair of the Meeting
- Mr. Adamou MOUSSA SALEY, DG ESMT, Senegal -
- Dr. André ONANA, ESMT, Senegal
- Dr. Adama KONATE, DG ESATIC, Côte d'Ivoire
- Mr. Rodolphe KOSSONOU, ESATIC, Côte d'Ivoire
- Mr. Jonathan P. MWAKIJELE, AFRALTI, Kenya
- Ms. Anita NATWATI, AFRALTI, Kenya
- Mr. Paulinus Okey UGWOKE, DBI Nigeria
- Mr. Nelson AFUNDU, DBI, Nigeria
- Ms. Anne Chantal MVOGO, SUP'PTIC, Cameroun
- Ms. Armelle MANKO, SUP'PTIC, Cameroun

ITU Staff members:

- Ms. Anne-Rachel INNE, Director of ITU Regional Office for Africa
- Ms. Nur Sulyna ABDULLAH, Chief of the Digital Knowledge Hub Department
- Ms. Susan TELTSCHER, Head of Capacity and Digital Skills Development Division
- Mr. Emmanuel NIYIKORA, Programme Officer, ITU Area Office Dakar, Africa Region
- Ms. Elena STANKOVSKA-CASTILLA, Associate Capacity Development Officer
- Ms. Guiomar LEVI-SETTI, Junior E-Learning Officer
- Ms. Halima LETAMO, Capacity and Skills Development Officer
- Ms. Sylvie RAPOSO, Capacity Development, Administrative Coordinator
- Mr. Marian PLETOSU, Junior Digital Skills Officer

Observers: Representatives of other Member states and agencies:

- Ms. Thuwayba Hussein, Tanzania Communications Regulatory Authority (TCRA)
- Mr. Juma Stephen Lugga LEMI, South Sudan

ANNEX 2: IMPLEMENTATION OF CoE TRAINING ACTVITIES 2021

| СоЕ | Courses planned | Delivery mode | Final delivery mode | Start date | End date | Status | Number of partici- pants registered | Number of partici- pants certified | End-of train- ing reports |
|---------|--|---------------|---------------------|------------|-----------|-------------|--|---------------------------------------|------------------------------|
| AFRALTI | Economic and Market-Based Methods of Radio Frequency Spectrum Management | online | | 1-Feb-21 | 26-Feb-21 | implemented | 51 | 49 | received |
| AFRALTI | Les méthodes économiques et le marché basés sur la gestion du spectre des fréquences radio | online | | 1-Feb-21 | 26-Feb-21 | implemented | 45 | 43 | received |
| AFRALTI | Digital Broadcasting Content Regulation in a Converged IP Environment | online | | 22-Mar-21 | 16-Apr-21 | implemented | 3 | 3 | received |
| AFRALTI | Radio Frequency Spectrum Economy and Market Valuation | online | | 16-Aug-21 | 10-Sep-21 | cancelled | | | |
| AFRALTI | Digital Broadcasting Masterclass | online | | 7-Jun-21 | 2-Jul-21 | cancelled | | | |
| AFRALTI | Economic and Market-Based Methods of Radio Frequency Spectrum Management (2nd Intake) | online | | 2-Aug-21 | 27-Aug-21 | cancelled | | | |
| AFRALTI | Digital Broadcasting Regulation in a Converged IP Environment (2nd Intake) | online | online | 11-Oct-21 | 5-Nov-21 | implemented | 4 | 4 | received |
| AFRALTI | Broadcast Spectrum Management | online | | 1-Nov-21 | 26-Nov-21 | cancelled | | | |
| DBI | International Computer Driving License (ICDL) - workforce modules | blended | | 26-Apr-21 | 30-Apr-21 | Cancelled | | | |
| DBI | Virtual Communication and Infographics | online | | 9-Aug-21 | 20-Aug-21 | implemented | 8 | 7 | received |
| DBI | Social Media Analytics and Management | online | | 6-Sep-21 | 17-Sep-21 | implemented | 20 | 25 | received |
| DBI | Cyber Forensics and IT Risk Management | online | | 11-Oct-21 | 22-Oct-21 | implemented | 18 | 17 | received |
| DBI | Cyber Forensics and IT Risk Management | face-to-face | | 25-Oct-21 | 29-Oct-21 | Cancelled | | | |
| DBI | Emerging Cybercrime Trends : Cybercrime Investigation & Mobile Forensics | face-to-face | online | 22-Nov-21 | 3-Dec-21 | implemented | 14 | | |
| ESATIC | Gestion des risques liés à la sécurité de l'information (Norme ISO/IEC 27005 : Risk manager) | face-to-face | online | 10-Mar-21 | 12-Mar-21 | Cancelled | | | |
| ESATIC | Sécurité du Cloud | face-to-face | online | 3-May-21 | 7-May-21 | Cancelled | | | |
| ESATIC | Sécurité des applications des services bancaires | face-to-face | | 7-Jun-21 | 11-Jun-21 | Cancelled | | | |

| ESATIC | Conception des réseaux d'accès optiques | face-to-face | online | 22-Mar-21 | 26-Mar-21 | Cancelled | | |
|--------|--|--------------|--------|-----------|-----------|-----------|--|--|
| ESATIC | Comprendre l'Internet des Objets (IoT) : Principes, Normes, Ecosystème et opportunités économiques | face-to-face | online | 19-Apr-21 | 23-Apr-21 | Cancelled | | |
| ESATIC | Les Systèmes embarqués pour l'Internet des Objets (IoT) | face-to-face | online | 6-Dec-21 | 20-Dec-21 | Cancelled | | |
| ESATIC | La Protection des données à caractère personnel | online | | 6-Sep-21 | 20-Sep-21 | Cancelled | | |
| ESATIC | 5G : Technologies et opportunités économiques | online | | 15-Nov-21 | 27-Nov-21 | Cancelled | | |

| СоЕ | Courses planned | Delivery mode | Start date | End date | Status | Number of partici- pants registered | Number of participants certified | End-of training reports |
|----------|--|---------------|------------|-----------|-------------|--|----------------------------------|-------------------------|
| ESMT | Informatique de l'audiovisuel : Transport, virtualisation et stockage | Online | 3-May-21 | 19-May-21 | cancelled | | | |
| ESMT | TNT : Les aspects techniques, planification et services | online | 21-Jun-21 | 25-Jun-21 | cancelled | | | |
| ESMT | Cadre réglementaire pour les services financiers numériques et les FinTechs | online | 29-Nov-21 | 17-Dec-21 | Implemented | 10 | | |
| ESMT | Management de projets digitaux : approches waterfall et agile (SCRUM) | online | 5-Jul-21 | 10-Jul-21 | cancelled | | | |
| ESMT | Gestion avancée du spectre pour la 5G | online | 1-Jun-21 | 29-Jun-21 | cancelled | | | |
| ESMT | Applications et Modèles Economiques de la Blockchain | Online | 1-Nov-21 | 26-Nov-21 | cancelled | | | |
| ESMT | Traitement distribué dans le Big Data | Online | 1-Dec-21 | 17-Dec-21 | cancelled | | | |
| NCB | Cyber Disaster Response: Development of Simulation Exercises | online | 21-Apr-21 | 23-Apr-21 | Implemented | 225 | 25 | received |
| NCB | An Introduction to Developing National Cyber Emergency Response Plans | online | 18-Aug-21 | 20-Aug-21 | Implemented | 217 | 40 | received |
| NCB | Building an effective cybersecurity team | online | 24-Nov-21 | 26-Nov-21 | Implemented | 448 | | |
| SUP'PTIC | Gouvernance et sécurité de l'internet | online | 5-Apr-21 | 2-May-21 | Implemented | 7 | 4 | Received |
| SUP'PTIC | Régulation des services financiers : Fondamentaux des microfinances et de la FINTECH | online | 19-Apr-21 | 16-May-21 | Implemented | 10 | 9 | Received |
| SUP'PTIC | Transactions électroniques et la Monétique | online | 18-Oct-21 | 14-Nov-21 | Implemented | 31 | | |
| SUP'PTIC | La blockchain : Fonctionnement et Applications (previously Applications et modèles économiques de la BlockChain) | online | 26-Oct-21 | 29-Oct-21 | cancelled | | | |

| SUP'PTIC | Enjeux techniques et juridiques de la large bande fixe et mobile | face-to-face | 16-Nov-21 | 19-Nov-21 | cancelled |
|----------|--|--------------|-----------|-----------|-----------|

| Year | СоЕ | Courses planned | Delivery mode | Original dates | Final dates | Status | Number of participants registered | Number of partici- pants cer- tified | End-of training reports |
|------|--------------|--|---------------|----------------|-------------|-------------|-----------------------------------|---|-------------------------------|
| 2021 | AFRALTI | Economic and Market-Based Methods of Radio Frequency Spectrum Management | online | 1-Feb-21 | 26-Feb-21 | implemented | 51 | 49 | received |
| 2021 | AFRALTI/ESMT | Les méthodes économiques et le marché basés sur la gestion du spectre des fréquences radio | online | 1-Feb-21 | 26-Feb-21 | implemented | 45 | 43 | received |
| 2021 | AFRALTI | Digital Broadcasting Content Regulation in a Converged IP Environment | online | 22-Mar-21 | 16-Apr-21 | implemented | 3 | 3 | received |
| 2021 | AFRALTI | Radio Frequency Spectrum Economy and Market Valuation | online | 16-Aug-21 | 10-Sep-21 | cancelled | | | |
| 2021 | AFRALTI | Digital Broadcasting Masterclass | online | 7-Jun-21 | 2-Jul-21 | cancelled | | | |
| 2021 | AFRALTI | Economic and Market-Based Methods of Radio Frequency Spectrum Management (2nd Intake) | online | 2-Aug-21 | 27-Aug-21 | cancelled | | | |
| 2021 | AFRALTI | Digital Broadcasting Regulation in a Converged IP Environment (2nd Intake) | online | 11-Oct-21 | 5-Nov-21 | implemented | 4 | 4 | received |
| 2021 | AFRALTI | Broadcast Spectrum Management | online | 1-Nov-21 | 26-Nov-21 | cancelled | | | |

ANNEX 3: TRAINING PROPOSALS 2022

i.Quality Assurance process completed

| Year | СоЕ | Courses planned | Priority area | Delivery mode | Start date | End date | Fee |
|------|---------|---|---|-----------------------|---------------------|----------------------|--------|
| 2022 | AFRALTI | Satellite Coordination Procedures and Fillings | Spectrum Management and Digital Broadcasting | Online instructor-led | 10 January | 04 February | 520USD |
| 2022 | AFRALTI | Digital Broadcasting Regulation in a Converged IP Environment | Spectrum Management and Digital Broadcasting | Online instructor-led | 7 February | 4 March | 960USD |
| 2022 | AFRALTI | Economic and Market Tools of Spectrum Management | Spectrum Management and Digital Broadcasting | Online instructor-led | 4 April | 29 April | 960USD |
| 2022 | AFRALTI | Digital Broadcasting Masterclass | Spectrum Management and Digital Broadcasting | Online instructor-led | 1 August | 26 August | 960USD |
| 2022 | AFRALTI | Socio-Economic Impact of Spectrum Regulation; Competition and Consumer Protection | Spectrum Management and Digital Broadcasting | Online instructor-led | 31 October | 25 November | 960USD |
| 2022 | DBI | Virtual Communication and Infographics | Cybersecurity and Innovation & Entrepreneurship | Online instructor-led | 7 February | 18 February | 150USD |
| 2022 | DBI | Cyber Forensics and IT Risk Management | Cybersecurity and Innovation & Entrepreneurship | Online instructor-led | 14 March | 25 March | 150USD |
| 2022 | DBI | Social Media Analytics and Management | Cybersecurity and Innovation & Entrepreneurship | Online instructor-led | 9 May 17 October | 20 May 28 October | 150USD |

| 2022 | DBI | Emerging Cybercrime Trends: Cybercrime Investigation and Mobile Forensics | • | Online instructor-led | 30 May 7 November | 10 June 19 November | 150USD |
|------|--------|--|---|-----------------------|----------------------|------------------------|--------|
| 2022 | ESATIC | Comprendre l'Internet des Objets (IoT) : Principes, Normes, Ecosystème et opportunités économiques | | Online instructor-led | 01 avril | 15 avril | 150USD |
| 2022 | ESATIC | Gestion des risques liés à la sécurité de l'information | Cybersecurity, Wireless & Fixed Broadband, and Internet of Things | Online instructor-led | 09 mai | 21 mai | 150USD |
| 2022 | ESATIC | 5G : Technologies et opportunités économiques | Cybersecurity, Wireless & Fixed Broadband, and Internet of Things | Online instructor-led | 13 juin | 25 juin | 150USD |
| 2022 | ESATIC | Conception des réseaux d'accès Optiques | Cybersecurity, Wireless & Fixed Broadband, and Internet of Things | Face-to-face | 18 juillet | 22 juillet | 880USD |
| 2022 | ESATIC | Comprendre l'Internet des Objets (IoT) : Principes, Normes, Ecosystème et opportunités économiques | • | Face-to-face | 21 novembre | 25 novembre | 880USD |
| 2022 | ESATIC | Sécurité du cloud | Cybersecurity, Wireless & Fixed Broadband, and Internet of Things | Face-to-face | 17 octobre | 21 octobre | 880USD |
| 2022 | ESMT | Réussir la transformation digitale de son organisation | Digital Broadcasting, Spectrum Management and Digital Economy | Online instructor-led | 8 mars | 29 mars | 312USD |

| 2022 | ESMT | Traitement distribué du Big Data | Digital Broadcasting, Spectrum Management and Digital Economy | Face-to-face | 11 avril | 15 avril | 453USD |
|------|------|--|--|-----------------------|-------------|-------------|--------|
| 2022 | ESMT | Informatique de l'audiovisuel : transport, virtualisation et stockage | Digital Broadcasting, Spectrum Management and Digital Economy | Face-to-face | 13 juin | 17 juin | 453USD |
| 2022 | ESMT | Gestion avancée du spectre pour la 5G | Digital Broadcasting, Spectrum Management and Digital Economy | Face-to-face | 11 juillet | 15 juillet | 312USD |
| 2022 | ESMT | Cadre réglementaire des services financiers numériques et des FinTechs | <u> </u> | Online instructor-led | 3 octobre | 29 octobre | 312USD |
| 2022 | NCB | Digital Forensics Essentials and Investigation Approach – new title to go through QAQA | • | Online instructor-led | 13 April | 15 April | Free |
| 2022 | NCB | Cybersecurity Techniques: A Hands- On Approach (August) | Cybersecurity | Online instructor-led | 17 August | 19 August | Free |
| 2022 | NCB | Building an Effective Cyber Incident Response Team | Cybersecurity | Online instructor-led | 16 November | 18 November | Free |
| Year | СоЕ | Courses planned | Priority area | Delivery mode | Start date | End date | Fee |

| 2022 | SUP'PTIC | Gouvernance et sécurité de l'internet | Digital Economy, Entrepreneurship, Fixed Broadband | | | Online instructor-led | Mars 2022 | Mars 2022 | 250USD |
|------|----------|---|--|----------------------------|---|-----------------------|------------|------------|--------|
| 2022 | SUP'PTIC | Régulation des services financiers : fondamentaux des micro-finances et de la FINTECH | • , | Innovation 8 Wireless 8 | | Online instructor-led | Avril 2022 | Avril 2022 | 100USD |
| 2022 | SUP'PTIC | Elaboration des politiques efficaces axées sur le développement de la big data dans les pays en développement : cas des infrastructures larges bandes | • | | & | Online instructor-led | Juin 2022 | Juin 2022 | 300USD |

ii.Under Quality Assurance process

| Year | СоЕ | Courses planned | Priority area | Delivery mode | Start date | End date | Fee |
|------|------|-------------------------|---|---------------|-------------|-------------|--------|
| 2022 | ESMT | Unerations Monile Money | Digital Broadcasting, Spectrum Management and Digital Economy | online | 08 Novembre | 28 Novembre | USD312 |