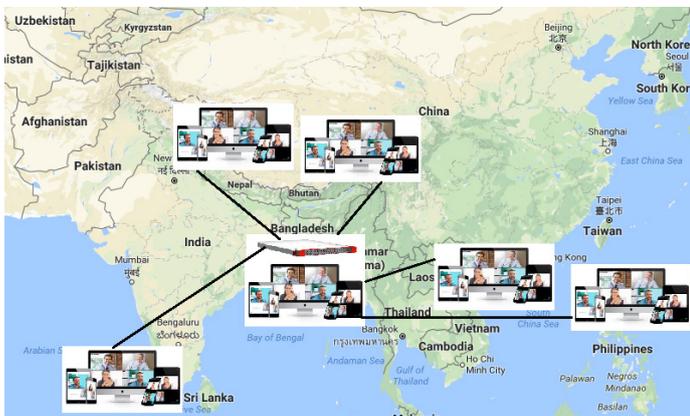


Distance Learning

Facilitating distance learning
using digital conferencing facility

Background

This project principally focuses on six beneficiary countries - Bangladesh, Bhutan, Nepal, Philippines, Sri Lanka and Thailand. However, while it aims to establish a service that will primarily be used by students, faculties, researchers and academics in these countries, other NRENs in the TEIN community will be encouraged to join, subject to resource availability. At the same time experts from different NREN communities are being encouraged to participate in Digital Seminars (DigiNars) and Digital Learning Environment (DLE) Programs using this facility. Sharing their relevant experience and expertise will help those within the project's beneficiary countries. Additionally, as the principal objective of the project is knowledge transfer through the deployment and operation of an advanced digital conferencing system, the project's train-the-trainer approach will allow knowledge to be further disseminated to other NRENs in the region.



Three DigiNars will be arranged under this project on key topics, such as "The Sustainability of NRENs", "EduRoam and Federated Identity" and "Implementing Learning Management Systems". All NRENs in the TEIN community will be encouraged to join these seminars to share their experiences or to gather knowledge in these areas. This aims to foster a new stream of collaboration within the TEIN community.

A further objective is to disseminate knowledge and expertise through distance learning and knowledge sharing to benefit faculties and students within the beneficiary countries. To achieve this, areas such as cryptography/cyber security/ Software Defined Networking (SDN) and other advanced topics will be demonstrated through the project. Finally, the beneficiary NRENs will be encouraged to conduct their own programs using the platform.

Objectives

- 1. Deploy a Digital Conferencing Platform:** The prime objective of this project is to promote the use of digital video conferencing facilities in the region by locally deploying a digital video conferencing platform to enhance collaboration, distance learning and knowledge sharing by connecting faculties, students, researchers, experts and resources from anyone to anywhere. Deploying the platform within TEIN itself will provide optimal performance and minimize dependency on resources in Europe or the US.
- 2. Transfer of Knowledge:** In this project, knowledge transfer around the deployment and operation of the digital conferencing platform is a key objective. By collaborating in the project and working with community experts, knowledge will be transferred to the region, allowing the service to be self-supported and sustainable.
- 3. Enhancement of Collaboration and Support:** The platform will enhance collaboration between different TEIN partners, as well as REN communities from different parts of the world by sharing hardware and software resources, as well as expert personnel.
- 4. Reducing the Digital Divide:** By sharing state-of-the-art technology, experts and knowledge between developed and developing countries within the NREN community, the digital divide will be minimized.
- 5. Facilitate Distance Learning Courses:** Under the project distance learning courses on key current issues will be run on an experimental basis. If outcomes are positive, the program may be expanded to professional certification and even to academic courses. This will contribute to the overall sustainability of the project.
- 6. Train the Trainers:** Staff from NRENs who are already using these types of technology and facilities will share their knowledge and expertise in order to train the trainers of NRENs within developing countries. In turn, they can share their acquired knowledge with those working in relevant fields in their own countries, spreading knowledge.
- 7. Enhance the utilization of TEIN:** As multiple training and conference programs will be run through the platform, which is installed in BdREN's cloud system, utilization of the TEIN network will be significantly enhanced during the project.

Activities So Far

- **Activity-1:** Preparatory Workshop for Identification and Finalization of Requirements. Held in Bangkok, Thailand on 25-27 September, 2018 [Completed]
- **Activity-2:** Procurement and Collection of Resources on-site [Ongoing]
- **Activity-3:** Installation of Resources, Testing and Commissioning the Platform and Development of Web Portal for the service [Completed]
- **Activity-4:** Train the Trainers-I program held at Negombo on 23-25 April, 2019 [Completed]



- **Activity-5:** Digital Seminar-I - "Building NREN competitive edge and financial sustainability" – [June 26-27, 2019]
- **Activity-6:** DLE-I Course on Cyber Security – [July 01-31, 2019 (4 weeks)]

Challenges and overcoming the challenges

- **Arranging competent resource personnel for Digital Seminars:** As anticipated this had been the biggest challenge so far. Invitations have been sent to all established RENs within Asi@Connect, NORDUNet and Ubuntunet. Communications had been made multiple times with several representatives of the same REN. The human network developed during APAN meetings was a big catalyst, with the token fee for presenters helping overcome this challenge.
- **Participation of beneficiary countries:** This has been found to be an overwhelming challenge which could not be foreseen during project development. Apart from one or two beneficiary countries, others were found to be almost passive, and not committed to making the project successful. Through increased awareness during different workshops, and particularly by arranging special sensitization programs during APAN meetings the level of participation could be enhanced. Hopefully, once the main project activities are in place, participation will be more spontaneous.
- **Lack of interest in Distance Learning Courses:** The plan is to mitigate this challenge by developing awareness

through a web portal, Facebook advertising and by communicating through the private networks of associated faculty members and network professionals. The role of representatives from the beneficiary countries is very important in surmounting this challenge.

Impacts so far

- 18 NREN beneficiaries received training during the kickoff meeting in Bangkok.
- 14 NREN beneficiaries received training during the TTT-1 workshop in Sri Lanka.

Asi@Connect support

- Asi@Connect supported the full financing of the project.
- Asi@Connect helped in creating the platform for BdREN through contacts with NORDUNet which is providing project technical assistance. NORDUNet has also provided the Zoom Application and Platform.
- Asi@Connect created the platform to build the human network with other beneficiary countries. Without this human network, the dream of initiating such a project would have been a nightmare.

Benefits to TEIN community

- 1. Technical Knowledge Exchange:** Through the kickoff meeting in Bangkok, TTT-1 workshop held in Negombo, Sri Lanka and programs arranged during APAN45, APAN46 and APAN47, a significant amount of knowledge has already been shared between NORDUNet's experts and representatives of beneficiary countries.
- 2. Dissemination of Knowledge through Distance Learning and Education Program:** Knowledge sharing through DigiNars and DLCs are planned.
- 3. Technology Transfer:** The kickoff meeting and TTT-1 workshop were arranged successfully, transferring the technology of Zoom video-conferencing platform to the project. It is planned that an LMS will be installed during the APAN45 meeting. If this is successful, it will lead to notable technology transfer.
- 4. Reduction of the Digital Divide within the NREN community:** The first DLC program on cyber security will be conducted from the University of Colombo School of Computing (UCSC), which has extensive experience and well-regarded faculty members. The aim is that the benefits for trainees will help eliminate the digital divide between countries and communities.
- 5. Foundation of a regular meeting:** Other than the planned workshops, digital seminars and DLCs, the platform is being used by participating NRENs to arrange regular meetings. This is an added success for the project.

For more information Asi@Connect : www.tein.asia fDLuDCF : <https://dle.asiaconnect.bdren.net.bd> BdREN : <https://www.bdren.net.bd/>

Disclaimer

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