"Open Science – The Way Forward"

Movenpick Hotel du Lac, Tunis

19-20 July 2022

Introduction

Under the kind patronage of His Excellency Prof. Moncef Boukthir, Minister of Higher Education and scientific Research of Tunisia, the Arab States Research and Education Network (ASREN) and the Computing Center Al Khawarizmi (CCK) are organizing a conference on "**Open Science – The Way Forward**" to be held at the Movenpick du Lac hotel in Tunis, Tunisia during 19-20 July 2022. The conference will be preceded by a regional meeting dedicated to the Arab National Research and Education Networks (NRENs) to discuss and plan NRENs support to research and education communities in terms of providing the appropriate infrastructures and the necessary services to these communities with Open science and Open Access in mind as a priority.

Background and overview

As research and education became more demanding for resources, applications, massive volumes of data, high performance, grid computing and content, it has become a worldwide trend to establish dedicated networks for research and education away from the commercial Internet to satisfy the needs of research and education communities. National Research and Education Networks (NRENs) have been found to provide dedicated connectivity to universities, research centers, libraries, hospitals and any other organizations supporting or conducting these activities.

NRENs services are not limited to connectivity provision. NRENs are expected to provide a set of services that enable collaboration and encourage joint projects and help the research and education communities to access scientific data repositories and computing resources. Furthermore, NRENs are now taking a new role in supporting new global trends in Science Cooperation, Open Science, Science Dialogue, Engagement with user communities and more.

Open Science, Open Access and Open Data are now on the top of the agenda of each country and at the regional and international levels. UNSESCO has recently announced its recommendations on Open Science. Europe has also adopted the European Open Science Cloud to support the R&E communities. More initiatives and activities are taking place around.

Al Khawarizmi Computing Center – CCK

Tunisia has been a pioneer in establishing CCK to host and run the Tunisian National University Network.Tunisian National Academic Network (in French Réseau National Universitaire, RNU for short) has been established and run by the CCK since 1997. CCK is also acting as an Internet service provider for the entire Tunisian academic community of nearly 400 000 users, 90% of whom are students and the rest are faculty members, full time researchers, and administrative staff. The RNU interconnects the networks of the various Tunisian universities, administrations, student's dorms, university restaurants, research centers and Technology Parks.

Arab States Research and Education Network – ASREN

The Arab States Research and Education Network (ASREN) was established in 2011 under the umbrella of the League of Arab States to support the developments in the Arab region through the provision of high-quality internet access, collaboration tools and platforms and infrastructure services to the research and education communities in the Arab region and to facilitate collaboration with other communities around the world.

ASREN is promoting Science Cooperation and Science Dialogue through Science Diplomacy activities, adopting Open Science based activities to facilitate science, research and education cooperation through robust infrastructures including connectivity, clouds and platforms and applications.

Main Topics

- NRENs to sustain and support research and education Infrastructures
- The role of AfricaConnect3 and LIBSENSE projects in supporting research, education and open science
- Open Science and open science platforms open access, open educational resources
- Clouds for research and education and Open Science Platforms including applications and infrastructures
- Science cooperation through sustainable infrastructures and open science environment
- Scientific research, educational communities and communities of practice

Program

Day 1	19 July 2022

09:00–10:30	*Opening Session*	**Moderator** Ms. Aida Snene, General secretary of CCK, Tunisia ● Welcome speech of Prof. Saoussen Krichen, Director General of Al Khawarizmi Computing Center - CCK, Ministry of Higher Education and Scientific Research, Tunisia ● Welcome speech of Mr. Yousef Torman, Managing Director, ASREN, Jordan ● "Main Pillars of Open Science in Tunisia", Mr. Chawki Chihi, Director General of Communication Technologies, Ministry of Communication Technologies, Tunisia ● "Recommendations of UNESCO for Open Science", Prof. Samia Charfi Kaddour, Counselor of the President of the Government, Tunisia ● Opening speech of His Excellency Prof. Moncef Boukthir, Minister of Higher Education and Scientific Research, Tunisia
10:30-11:00		*Coffee break*
11:00-12:30	*Open Science I*	**Moderator** Mr. Yousef Torman, Managing Director, ASREN, Jordan ● "The University in the Year 2050 and the Metaverse", Prof. Mohamed Louadi, Institut Supérieur de Gestion, University of Tunis, Tunisia ● "ASREN Strategy on Open Science", Raed Al-Zoubi, Director of the Centennial Library, Jordan University of Science and Technology, Jordan ● "Strategic Investment in Open Science: Interests and Needs of the Research Community and Society", Nazar M. Hassan, UNESCO Senior STI Regional Advisor for the Arab States, UNESCO, Egypt ● "ORCID Supporting Arabian Researchers", Nabil Ksibi, Engagement Lead, ORCID, South Africa ● "Mapping and Visualizing the Arab Region's Contribution to Global Environmental Research through Open Access Publishing", Shaher Zyoud, Ministry of Higher Education & Scientific Research, Palestine
12:30-14:00		*Lunch break*
14:00-15:30	*Open Science II (Remotely)*	**Moderator** Mr. Raed Al-Zoubi, Director of the Centennial Library, JUST, Jordan ● Roberto Barbera, Professor, University of Catania, Italy (Remotely) ● "LA Referencia - ASREN Collaboration: Building a Regional Aggregator for Arabic Contents", Lautaro Julian Matas, Executive and Technical Director, La Referencia, Latin America (Remotely) ● "LIBSENSE: Building Communities to Strengthen Open Access and Open Science in Africa", Omo Oaiya, Chief Strategy Officer, West and Central African Research and Education Network (WACREN), Ghana (Remotely) ● "Open Science: Its Basic Pillars and Operationalization in the Arab Region", Essam Al-Hanash, Chairman of the Basic Science Sector Committee of the Supreme Council of Universities, Former Vice Minister of Higher Education & Scientific Research, Egypt (Remotely) ● Abdullahi Bihi Hussein, CEO, SomaliREN, Somalia (Remotely)
15:30-16:00		*Coffee break*

Day 2	20 July 2022	

09:00-10:00	*Advances in Artificial Intelligence*	**Moderator** Prof. Narjes Bellamine, Director of the Ecole Nationale des Sciences d'Ingénieurs (ENSI), University of Manouba, Tunisia
		● "Data Science Education in MENA Region", Elyes Manai, Alumni from ISAMM and ESEN Expert in Artificial Intelligence, Tunisia ● "Robotic Innovation with Artificial Intelligence", Ahmed Dardouri, Engineering Student in Computer Science, ENSI, University of Manouba, Tunisia ● "Soundefy: Translation of Sign Language into Text and Speech", Raoua Trimech and Hadil Helali, Engineering Students in Computer Science, INSAT, University of Carthage, Tunisia ● "Confidence Management for Traffic Congestion", Rehab Abidi, PhD student in data science, Higher Institute of Management, University of Tunis
10:0-11:30	*NRENs, Clouds and Infrastructures*	**Moderator** Dr. Youssef Ben Halima, Counselor of the Minister of Higher Education and Scientific Research, Tunisia
		● "National Strategy for The Cloud: legislatives and services", Dr. Wala Turki, counselor of the Minister of Communication Technologies of Tunisia ● "Towards Arab Open Science Cloud", Yousef Torman, Managing Director, ASREN, Jordan ● "Networks and security: Active defense and Cyber deception", Prof. Slim Rkhis, SupCom, University of Carthage and Ministry of Communication Technologies, Tunisia ● "CCK-RNU Infrastructures", Abdelhakim Chattaoui, CCK, Tunisia ● "ASREN Clouds Services", Eriko Porto, IT Consultant, ASREN, Brazil (Remotely)
11:30-12:00		*Coffee break*
12:00-13:00	*Science Cooperation*	**Moderator** Mrs. Besma Belaid, General secretary of ENIT, University of Tunis El Manar
		● "International Cooperation Strategy in the Ministry of Higher Education and Scientific Research", Malek Kochlef, Director General of International Cooperation, MESRS, Tunisia ● "ASREN's Strategy on Science Cooperation", Yousef Torman, Managing Director, ASREN, Jordan ● "SESAME – The Unique Experimental Research Facility in MENA and Neighboring Region", Salman Matalgah, Team Leader, Scientific Computing & Systems Com, SESAME, Jordan ● "2022 Erasmus+ Projects in Tunisia", Dr. Nesrine Baklouti, Erasmus+ Tunisian Coordinator ● "Advanced and Collaborative AI Research on Arabic", Mustafa Jarrar, Professor of Artificial Intelligence, Birzeit University, Palestine
13:00-13:30	*Closing Session*	● Prof. Saoussen Krichen, Director General of CCK, MESRS, Tunisia ● Mr. Yousef Torman, Managing Director, ASREN, Jordan
13:30-15:00		*Lunch Break*