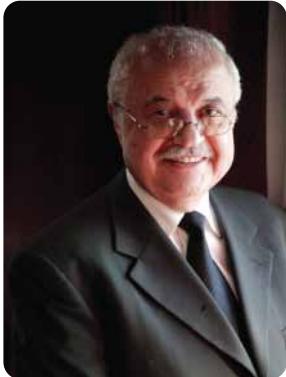


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## Forward

Talal Abu-Ghazaleh  
Arab States Research and Education Network

As we move into an era of change, we will continue to invest in setting up inter-Arab ICT infrastructure for research and education. The use of high-speed communication networks represent powerful means for team collaboration, sharing of resources, and exchange of real-time simulation and data transfer. The Arab States Research and Education Network (ASREN) has been striving to make these networks ready for collaboration among Arab scientists and their peers at the international level. Our goal has been to connect all Arab research and education institutions in a unified network that provides scientists, academics, students, and researchers with state-of-the-art connectivity. Through the unified e-Infrastructure, ASREN will provide its users with services, applications, and means for joint research collaboration. It will also allow for a wider access to educational content and efficient computing facilities. However, financing, political instability, scattered geographical landscape, and lack of expertise are the main challenges. With EUMEDCONNECT funding, EUMEDGrid Support, and other regional initiatives, ASREN will be able to sustain existing networks in the Arab countries.

While still the subject of debate, there is now a growing consensus for the concept of ASREN Arab regional e-Infrastructure with main PoPs (point of presence) originating in Egypt, UAE, Saudi Arabia, Jordan, and Morocco and connecting to the regional networks in Europe, Asia, Africa, and North America. ASREN continues to join efforts with its European counterparts to bring new technology means and services to the Arab research and education communities and to provide hope to our future scientists towards enhanced educational environments equipped with better tools, connectivity, and services.

This year's conference is the fourth international platform in series towards building support and consensus for integrating Arab e-Infrastructure in a global environment. The objective is to create a more economical network to connect the Arab national research and education networks to the world and to evolve as a backbone between the East and the West. Research is no more possible without international outreach, as scientists are obliged to work in research teams to solve common problems in variety of topics, including engineering, environment, health, energy, and economy.

**Chairman of ASREN**  
HE Dr. Talal Abu-Ghazaleh

## **Why ASREN?**

Arab States Research and Education Network ASREN, is the association of the Arab region NRENs (National Research and Education Networks) and other strategic partners. Its mission is to establish, manage and operate a pan-Arab e-infrastructures and e-services for the research and education communities. The purpose is to boost scientific research and regional cooperation. ASREN's vision is to support pan-Arab collaborative research and education projects and activities through high-speed networks, and to contribute to boosting scientific research, innovation and education across the Arab world by increasing efficiency and productivity of research and education communities

## **What e-AGE is all about?**

Integrating Arab e-Infrastructure in a Global Environment, e-AGE, is an annual international platform conducted by ASREN. Since launched in December 2010 at the League of Arab States, it was decided to have this annual activity moving from one Arab Country to another. e-AGE comes in line with ASREN's major objectives related to creating awareness, promoting R&E collaboration and joint activities and establishing human networks in order to facilitate collaboration and cooperation among researchers and academicians in the Arab region and the rest of the world.

e-AGE is meant to be the launching pad for R&E connectivity and cooperation. It brings together ASREN, EUMED, GEANT, AfREN and Internet2 stakeholders and region's foremost innovators, leaders, scientists, and businesses to discuss and debate new models of innovation, integration of R&E networks, policies for sustainable development in education, means of knowledge sharing and dissemination, capacity building programs, and region-wide e- infrastructure deployment to tackle today's crises in climate change, global economy, food, water scarcity, alternative energy, and threatening environmental issues. The forum can lay the foundation for a dream of many of today's leaders towards a global e-infrastructure for R&E based on real life broad inclusiveness beyond any political protocols.

## **Past e-AGEs**

### **e-AGE 2011**

The 1st International Platform on Integrating Arab e-infrastructure in a Global Environment, e-AGE 2011, took place in Amman during December 12 - 14, under the Patronage of His Majesty King Abdullah II ibn Al Hussein. It was attended by more than 200 high level representatives including ministers, policy makers, academics, network professionals, researchers, scientists, and government officials from 30 different countries. e-AGE 2011 was an important gathering for networking among officials, experts and scientists from all many countries, including Algeria, Belgium, Canada, Cyprus, Egypt, Ethiopia, Germany, Greece, Iraq, Italy, Jordan, Korea, Lebanon, Morocco, Netherlands, Oman, Palestine, Peru, Qatar, Saudi Arabia, Somalia, Sudan, Switzerland, Tunisia, Turkey, UAE, UK, and USA.

## e-AGE 2012

The 2nd International Platform on Integrating Arab e-infrastructure in a Global Environment, e-AGE 2012, was held in Dubai during December 12 - 13, under the patronage of His Excellency Nahyan Mubarak Al Nahyan, the UAE Minister of Higher education and Scientific Research. It was attended by academics, network professionals, researchers, scientists, and high level decision makers from governments, enterprises, NGOs, academia, and civil society.

Representatives from the following countries participated in e-AGE 2012 meetings: Afghanistan, Algeria, Bahrain, Belgium, Cameroon, China, Cyprus, Czech Republic, Dominican Republic, Egypt, Germany, Ghana, Greece, India, Italy, Ivory Coast, Jordan, Latin America, Lebanon, Malawi, Morocco, Netherlands, Nigeria, Oman, Palestine, Qatar, Rwanda, Saudi Arabia, Somalia, Spain, Sudan, Switzerland, Tunisia, UAE, UK, USA, Yemen and Zimbabwe.

## e-AGE 2013

The 3rd International Platform on Integrating Arab e-infrastructure in a Global Environment, e-AGE 2013, was held in Tunis during December 12 - 13, under the Patronage of His Excellency Moncef Ben Salem, Minister of Higher Education and Scientific research of Tunisia and hosted by The Computing Center Al Khwarizmi (CCK). This conference spanned full week 9 - 13 December of several events, meetings, and a technical workshop in cooperation with Network Startup Resource Center (NSRC).

In addition to this, e-AGE 2013 witnessed the signature of the agreement between the Ministry of Higher Education and Scientific Research of Iraq and ASREN. ASREN also announced the operation of its first PoP in London Telicity. It was attended by many countries from all over the world: Algeria, Australia, Canada, Egypt, France, Germany, Greece, Iraq, Ireland, Italy, Jordan, Libya, Malawi, Morocco, Netherlands, Oman, Palestine, Qatar, Saudi Arabia, South Korea, Spain, Sudan, Switzerland, Tunisia, UAE, UK, USA and Yemen.

## e-AGE 2014

The e-AGE platform has established itself as an important venue for networking among experts and scientists from all over the world. In e-AGE 2014, the focus is on "Intercontinental Connectivity of the Pan Arab Network" as the main theme of the event. ASREN started concrete steps towards connecting researchers and academics across the Arab States by launching Arabian Global Educational Open PoP (AGE-OP) in London Telicity. Ankabut recently announced the Arabian Global Educational Open eXchange (AGE-OX) to be the first exchange in the region. ASREN is also working with partners in Egypt and the western part of the Arab Region. ASREN is also supporting the development of NRENs in many Arab countries. Special attention and more focus are on users and how this e-Infrastructure can support the needs of the users in terms of services and applications, on top of connectivity. More sessions are dedicated to the users to present their research and education activities and to identify how these users can be better served by NRENs.

**Following the success of e-AGE in** 2011, 2012 and 2013, e-AGE 2014 includes the following activities:

- The 4th Annual Meeting of ASREN
- The 7th Event on Euro-Mediterranean e-Infrastructure
- ASREN Shareholders Meeting
- EUMEDCONNECT3 Project Meeting
- AROQA 6th Annual Conference
- AROQA Workshop on Ensuring Congruence between Internal and External Quality Assurance (IQA) (EQA)

## Committees

Special recognition and appreciation are extended to the committees' members who contributed by the joint extensive work and continued support to make the success of e-AGE 2014.

### Program Committee



Ahmed Dabbagh, Emirates Identity Authority, UAE



Boubakar Barry, West and Central African Research and Education Network (WACREN), Senegal



David West, Delivery of Advanced Network Technology to Europe (DANTE), UK



Federica Tanlongo, Consortium GARR, Italy



Federico Ruggieri, The Italian National Institute of Nuclear Physics (INFN), Italy



Habib Youssef, The Computing Center Al Khwarizmi (CCK), Tunisia



Helga Spitaler, Delivery of Advanced Network Technology to Europe (DANTE), UK



Johnathon Chapman, US Internet2 Special Interest Group Middle East (Internet2 SIG), Qatar



Mwaffaq Otoom, Yarmouk University (YU), Jordan



Ola Samara, Arab States Research and Education Network (ASREN), Jordan



Salem Al-Agtash, German Jordanian University (GJU), Jordan



Sara Al-Eisawi, Arab Organisation for Quality Assurance in Education (AROQA), Jordan



Yousef Torman, Arab States Research and Education Network (ASREN), Germany

## Organizing Committee



Juma Al Balushi, The Research Council (TRC), Oman



Maisoon Kawwar, Talal Abu-Ghazaleh Organisation (TAG-Org), Oman



Majdi Al-Abiad, Talal Abu-Ghazaleh Organisation (TAG-Org), Oman



Ola Samara, Arab States Research and Education Network (ASREN), Jordan



Warda Al Habsi, The Research Council (TRC), Oman



Yousef Torman, Arab States Research and Education Network (ASREN), Jordan

## Scientific Committee



Ahmed Dabbagh, Emirates Identity Authority, UAE



Federico Ruggieri, The Italian National Institute of Nuclear Physics (INFN), Italy



Boubakar Barry, West and Central African Research and Education Network (WACREN), Senegal



Salem Al-Agtash, German Jordanian University (GJU), Jordan

# Agenda

## Day 1: Wednesday, December 10<sup>th</sup>, 2014

08:00-09:00 **Registration**

09:00-10:15 **Inauguration and Joint Opening with AROQA**

- Welcome Address: HE Dr. Hilal Al Hinai, Secretary General of The Research Council, Oman
- HE Dr. Talal Abu-Ghazaleh, Chairman of ASREN, Jordan

### The Launch of OMREN Logo

Mohammad Al Farei - Managing Director of Zeenah Group, Oman

### Keynote (1)

- Thomas Delaney, "Community-Based Research Through Open R&E Exchanges: A New York University Perspective", Vice President for Information Technology & Chief Global Technology Officer, New York University, USA

### Appreciation and Recognition

10:15-10:45 **Coffee Break**

10:45-11:45 **Session (1): Evolution of ASREN's Region**

- **Oman:** Nasser Al Mandhari, OMREN Sponsor, TRC
- **Algeria:** Aouaouche El-Maouhab, Director, ARN
- **Bahrain:** Abdulla Al-Thawadi, BahREN
- **Egypt:** Ahmad Hassan, General Manager, EUN
- **Jordan:** Nabil Shawaqfeh, Chairman, JUNet
- **Lebanon:** Walid Karam, Advisor to the Minister, Ministry of Telecommunications
- **Libya:** Ahmed Al-kilani, ICT Advisor to MOHE
- **Morocco:** Redouane Merrouch, Director, MARWAN
- **Palestine:** Irene Hazou Makhoul, Vice President for Academic Affairs, Bethlehem University
- **Qatar:** Hassan Al-Derham , Vice President for Research, Qatar University
- **Somalia:** Dahir Hassan Arab, CEO, SomaliREN
- **Sudan:** Sami Salih, CEO, SudREN
- **Tunisia:** Habib Youssef, General Director, CCK
- **UAE:** Fahem Al Nuaimi, CEO, Ankabut
- **Yemen:** Khaled Basulaim, Managing Director, YCIT-HE
- **Arab Region:** Yousef Torman, Co-Managing Director, ASREN

11:45-12:45 **Roundtable (1): AGE-OX and AGE-OP, Towards Intercontinental Connectivity**

- Fahem Al Nuaimi, CEO, Ankabut, UAE
- David West, EUMEDCONNECT3 Project Manager, GÉANT Association, UK
- Sureswaran Ramadass, Chairman, APAN, Malaysia
- George Loftus, Associate Vice President for Network Services, Internet2, USA
- Salem Alagtas, German Jordanian University, ASREN, Jordan
- **Yousef Torman, Co-Managing Director, ASREN, Jordan (Moderator)**

12:45-14:00 **Lunch Break**

**14:00-14:15 Keynote (2)**

- Eesa Bastaki, President, University of Dubai, UAE

**14:15-15:30 Roundtable (2): International Co-operation in Research and Innovation - How to Make it Work for the Arab Region****Keynotes**

- Aniyan Varghese, Programme Manager, DG CONNECT, European Commission, Belgium
- Carlos Oliveira, Responsible for International Co-operation, DG CONNECT, European Commission, Belgium
- Fahad Al-Hosni, Director of Research Administration, TRC, Oman
- Abdallah Al Zoubi, General Director, Scientific Research Support Fund, Jordan

**Salem Alagtas, German Jordanian University, ASREN, Jordan (Moderator)**

**15:30-16:00 Coffee Break****16:00-17:00 Session (2): Research Communities**

- Ahmed Dabbagh, Research and Development Advisor, Emirates Identity Authority, UAE (CHAIR)**
- Anna Rajab, "Development of Genetic Services in the Sultanate of Oman", Consultant Clinical Geneticist, Director of National Genetic Center, Ministry of Health, Oman
- Guido Zebisch, "ARABTERM, ALECSO's Technical Terminology Database. A Future Hyper-Platform", Project Director, ARABTERM Project - Deutsche GIZ GmbH, Morocco
- Federico Ruggieri, "e-Infrastructures Technical and Organisational Challenges", Head of Computing and Storage Department, GARR, Italy
- Brahim Lagoun, "ABINIT, a First Step on GRID Infrastructures under CHAIN-REDS Project", Professor & Researcher, Laghout University, Algeria

**17:00-17:45 Session (3): Education and Learning, to Where?**

- Hisham Ibrahim, "Bridging Gaps: ICT and Innovation in the Arab World", Regional Program Manager, RIPE NCC, UAE (CHAIR)**
- Michelle Makaroff, "What about Innovative e-Schools Public-Private Partnerships?", Senior Director Governments and International Organisations, Teachers Media International
- Karim Abdelghani, "ITU's Regional Initiative on Smart Learning", Programme Coordinator, ITU Regional Office for the Arab States, Egypt
- Ali Yazici, "Lifelong Learning (LLL): A Roadmap for the Developing Countries", Head of Software Engineering Department, Atilim University, Turkey

**18:30-19:30 ASREN Shareholders Meeting (closed meeting)****19:30 Dinner - Grand Hyatt garden**

## Day 2: Thursday, December 11<sup>th</sup>, 2014

08:30-09:00 **Registration**

09:00-09:15 **Keynote (3)**

- Barend Mons, "Data Stewardship, Boring or Soaring?", Chair of DTL-data and Head of ELIXIR node NL, Netherlands

09:15-10:45 **Session (4): e-Infrastructures and Services**

- Sharifa Hajjat, Elearning Manager, Higher Colleges of Technology, UAE (CHAIR)**
- Brook Schofield, "Increasing eduGAIN Participation through the Evolution of Federation Development", Project Development Officer, GÉANT Association , Netherlands
- Elisabetta Zuanelli, "Aquenergy: A Transboundary Platform for Water and Energy Information Availability", Full chair Professor, University of Rome «Tor Vergata», Italy
- Antonio Sanfilippo, Research Director, Qatar Foundation, Qatar
- Sergey Suchkov,"PPPM as a New Model of and thus a Unique Tool in a Global Reshuffling of National and International Healthcare Services", Chair and Director, Dept for Preventive, Personalized and Translational Medicine, A.I.Evdokimov Moscow State Medical & Dental University, Russia
- Roberto Barbera, "The INFN Open Access Repository", Associate Researcher, University of Catania and INFN, Italy

10:45-11:00 **Coffee Break**

11:00-11:45 **Roundtable (3): Internet Governance in the Arab Region**

- Said Al-Mandhari, CEO, Oman Broadband Company, Oman (Moderator)**
- Imad Hoballah, "Internet Governance: Key to Development and Rights", Chairman and CEO, Telecommunications Regulatory Authority, Lebanon
- Hafedh Yahmadi, Director, Collaborative Innovation Centre, Tunisia
- Fahd Batayneh, Coordinator, Stakeholder Engagement, Middle East, ICANN, Jordan

11:45-12:45 **Session (5): Trends in Global Networking**

- Johnathon Chapman, US Internet2 Special Interest Group Middle East (Internet2 SIG), Qatar (CHAIR)
- Greg Cole, "GLORIAD: The Next Generation of Innovations, Services, Communities and Leaders", Principal Investigator and Director, GLORIAD, USA
- Alexander van den Hil,"SURFnet: Network Services and International Collaboration", Product Manager, SURFNet, Netherlands
- Marco Brandstaetter,"UAE-IX the Internet Exchange for the Middle East", Business Development, UAE-IX, Austria
- Nasir Memon,"Cyber Stability and Security in the Gulf: Challenges and Opportunities", Professor, New York University, USA
- Sami Salih,"Deployment of IPv6: Case of SudREN", CEO, SudREN, Sudan

12:45-14:00 **Lunch Break**

14:00-14:45 **Session (6) CERN and Regional Cooperation**

- Patrick Fassnacht, "CERN: from Fundamental Science to Daily Applications", Adviser to DG for MENA, CERN, Switzerland (CHAIR)**
- Albert De Roeck, "Experiments at the Large Hadron Collider at CERN: Challenges and Opportunities", Senior Research Scientist, CERN, Switzerland
- Tony Cass, "The Worldwide LHC Computing Grid and its Network Connections", Head of Communication Systems, CERN, Switzerland
- Salman Matalgah,"SESAME as an International Research Lab", Computing Group Leader, SESAME, Jordan

**14:45-15:30 Roundtable (4): Technology Prospects**

- Yves Poppe, "ASREN and High Performance Computing (HPC)", Transcontinental Supercomputing Networking, A\*STAR Computational Resource Centre, Singapore
- Michael Moore, "Are We Really Impacting Teaching and Learning?", Senior Advisory Consultant, D2L Corporation, Canada
- Marco Brandstaetter, Business Development, UAE-IX, Austria
- Mohammed Husamaddin, "Disruptive Technologies Change the Face of Higher Education", Director, Knowledge Assets Management, Naseej, Saudi Arabia
- **Mohammad Mabrouk, Manager, Network Operations, Ankabut, UAE (Moderator)**

**15:30-16:00 Coffee Break****16:00-17:30 Session (7): Scientific Contributions**

- Rafael Mayo García, "CHAIN-REDS Application Use Cases on Data Management", Senior Researcher, CIEMAT, Spain (CHAIR)
- Bremananth Ramachandran, "An Efficient Approach of e-Iris Enrolling and Authentication for FS e-Apps", Associate Professor, Sur University College, Oman
- Ognjen Prnjat, "Surveying Clouds in the Global Environment", European and Regional e-Infrastructure Manager, GRNET, Greece
- Ognjen Prnjat, "Shared Computing Infrastructures: A Regional Operational Approach", European and Regional e-Infrastructure Manager, GRNET, Greece
- Karim Zerhouni, "Comprehensive Distance - Flexible Learning through the Latest in Collaboration and Virtualization", Chief Information Officer, American University of Central Asia, Kyrgyzstan
- Mimoun Hajj, "Aromatic Hydrodecyclization of Using Catalysts Based on Molybdenum and Tungsten Supported on the Remblend of Kaolin", Professor, University of Boumerdes, Algeria
- Elgilany Ahmed, "Interrelation of Crop Productivity and Household Food Security in North Sudan", Senior Lecturer, University Utara, Malaysia
- Abubkr Abdelsadiq, "Towards Libyan Research and Education Network (LibREN)", Elmergib University, Libya

**17:30-18:00 Joint Closing with AROQA****Day 3: Friday, December 12<sup>th</sup>, 2014****08:30-09:00 Registration****09:00-14:00 ASREN & EUMEDCONNECT3 Project Meeting (by invitation only)****14:00-15:00 Closing and Lunchn**

## Host



e-AGE 2014 is hosted by the The Research Council of Oman (TRC). TRC is Oman's exclusive research funding body and leader of research development in the country. TRC serves as a focal point and hub dedicated to promoting and supporting research, scientific enquiry, and innovation in the Sultanate of Oman. At the heart of our work is nurturing research talent to power innovation and create economic benefit for our national prosperity.

Established in June 2005, TRC has been founded by Royal Decree No. 54/2005 under the chairmanship of His Highness Sayyid Shihab Bin Tariq Al-Said, adviser to His Majesty the Sultan. This was notably followed in 2010 by Royal Decree No.30/2010 with TRC set to lead the way in drawing up a national plan for scientific research in the Sultanate.

As a policy-making body and funding agency, TRC encourages the promotion and application of research, innovation and science to create value that serves business, markets and the wider needs of society. It is our belief that research conducted in Oman should further the public good with commitment to the spread and transfer of knowledge.

## Panelist and Speakers



**His Highness Sayyid Taimur Bin As'ad Al Said**  
The Research Council, Oman



**HE Talal Abu-Ghazaleh**  
ASREN Chairman

HE Dr. Talal Abu-Ghazaleh born on April 22nd, 1938 in Jaffa, is the Chairman and Founder of Talal Abu-Ghazaleh Organisation. Founded in 1972 (TAG-ORG) is an international professional services group, TAG-Org is an international professional services group with 80 offices and 180 representative offices worldwide.

It currently offers a composite range of professional services covering Accounting; External Audit; Internal Audit; Corporate Governance; Taxation; Educational Consultancy; Economic and Strategic studies; Management Advisory Services; Professional and Technical Training; Technology Transfer Project Management; Real Estate Management; Investors and Business Advisory Services; Human Resources and Recruitment Services; E-Government; E-Commerce; E-Education; IT and Security Audit; Web Mastering and Web Design; Professional Interpretation and Translation; Website Arabization; Domain Names Registration; ICT Strategic Planning; ERP Consulting Services; IT and Internet Skills Training and Examinations; Intellectual Property News Agency; IP Business and Asset Valuation and Branding Services; IP Registration and Protection; Intellectual Property Renewals; IPR Protection and Management; Legal Services (Solicitors and Attorneys); and Public Offering.



### **HE Adam Kulach**

Adam Kulach is Ambassador-Head of Delegation of the European Union to Saudi Arabia, Bahrain, Kuwait, Oman and Qatar. Previously, he was Director in the Department of Africa and the Middle East, Ministry of Foreign Affairs of the Republic of Poland. From 2004-2010, he was Ambassador of the Republic of Poland to the Kingdom of Saudi Arabia (also accredited to the Sultanate of Oman - since 2005 - and the Republic of Yemen – since 2009). From 2010-2012, he was Deputy Director (Arab countries and Iran), Department of Africa and the Middle East, Ministry of Foreign Affairs and from August 2011 he was also Plenipotentiary of the Minister of Foreign Affairs for North Africa. He has a Masters in Political Sciences (International Relations) from the State Institute of International Relations, Moscow (Faculty of Oriental Studies) and has completed Post-Graduate Studies in Law & Economy of European Communities (University of Warsaw) and Post-Graduate Management Studies (Faculty of Management, University of Warsaw).



### **HE Dr. Ali Ismail**

Dr. Ali kasim Ismail Othman is a deputy Minister for Educational Affairs-Ministry of Higher Education and Scientific Research, Sana'a, Yemen for the last ten years. He received BS (1978) degree in Agriculture – Plant Protection from Baghdad University, Iraq. He completed Master degree (1984) in Agriculture Extension Education from New Mexico State University, Lass Cruses, USA, and PHD degree (1992) in Agriculture Extension Education from The Ohio State University, Columbus Ohio, USA. As a Deputy Minister, He is doing many activities such as, administrating, supervising and assessing education programs of government and private universities, preparing annual reports, participate in forming annual budget and working plan ...etc. He has over 30 years of experiences in the field of educational, development projects including projects identification, formulation, implementation, monitoring and evaluation. He also has implemented numerous consultancy assignments on projects impact assessment on beneficiaries, Socio-economic surveys and studies, and community development for different International Organizations such as (IDA/ WB (PWP-2 Project) (FAO, Dutch, GTZ, UNDP) His research interests are Socio-economic studies, Impact assessments, Agriculture Extension studies and Community development. He is author and co-author of several articles and research reports in different fields as mentioned above. Also, he supervised a number of Master Thesis in the field of Agriculture Extension.



### **HE Dualle Adam Mohamed**

Hon. Dualle Adem Mohamed the minister for Culture and Higher Education born in 1967 in Mogadishu, Somalia. He is married with 6 children. He holds Master of Business Administration from International University of Africa, Khartoum, Sudan.

He was a lecturer at SIMAD UNIVERSITY from 2003 to 2006. He joined politics in 2009 and worked with former president of Somalia H.E. Sheikh Sharif Sheikh Ahmed from August 2009 to May 2010 as deputy chief of staff. He was transferred to the ministry of interior as its director general. He held this position from January to April 2011. From May 2011 to December 2003, he served as Director General at Ministry of Health and Social Services.



### **Mrs. Magda Zaki**

Magda H. Zaki is a graduate of the American University in Cairo where she majored in Political Science. . During her years of college, she had the chance to participate in an exchange program in Grand Rapid State College –MI-US, as well as to travel intensively for courses in China (1978) and the US (1980).

In 2000, she received her M.A with honors from the same university; her thesis topic was "National Identity in Central Asia in the Post Soviet Era, the case of Uzbekistan" which was partly written while visiting the countries of Central Asia in the late 90's.

Between 1980 and 1990, she joined her family's business working with different international co-operations such as Rockwell Int. (USA), Mitsubishi (Japan) etc... Around 1993, she made a career change and decided to work in her field of studies where she joined the League of Arab States.

Between 1993 and 2005, she worked in the Arab Fund for Development and Cooperation in Africa, a Fund affiliated to the Arab league focusing on "Development in less fortunate Sub-Saharan African Countries".

Then, in 2005 she joined the department of the Americas, where she was promoted as head of the division of North America focusing and researching US-Arab relations during the Bush II administration.

In 2008 she became director of the department of the Dialogue among Civilizations until 2013 when she became director of the department of Education and Scientific research tilting her focus from political to social affairs.

Her hobbies are Homeopathy and alternative therapies, reading and writing; Art & architecture, focus on Islamic architecture, music, travel and recently gardening.



### **Abdallah Al-Zoubi**

Prof. Abdallah S. Al-Zoubi acquired his (D.Sc.) and (Ph.D.) in Engineering Geophysics from St. Petersburg Mining Institute, Russian Academy of Sciences in 1992, after being granted a government scholarship for his distinction. In 2001, he obtained FULBRIGHT Scholar, Woods Hole, Massachusetts, followed by Alexander Von Humboldt Scholarship in 2005. Prof. Al Zoubi was appointed at the Ministry of Energy and Mineral Resources during the years (1992-2000) as Head of Planning and Development Department and then as Head of Geophysics Division responsible for all geophysics investigations in Jordan.

Later, in 2001 he joined Al Balqa' Applied University where he served in different positions. First he was appointed Director of Research & Studies Department (2002), then Dean of Graduate Studies & Scientific Research (2005). In 2007, he became Dean of Scientific Research & Engineering Faculty. In June, 2008, Prof. Al-Zoubi took up the post of Vice President for Academic Affairs and served

there for two years. In September, 2010 until April, 2012, he became Vice President for Scientific Research and International Cooperation. During his service at Al Balqa' Applied University, he was selected as a member and Chairman for several committees. Prof. Al-Zoubi published more than (59) articles in renowned, international, scientific and refereed journals.

He participated in more than (52) international and regional conferences, and was the Chairmanship and organizer for three conferences and five workshops. Prof. Al-Zoubi was a principle investigator for 21 international projects funded by renowned institutions such as (USAID, NSF, BMBF, NATO) and others. Known for his competence and hardworking, he got Queen Rania Abdallah II Scholarship to attend Harvard University's courses titled (Negotiations and Conflict Management) and (Leading in Times of Crisis). In April, 2012, Prof. Al-Zoubi was appointed Director General of Scientific Research Support Fund (SRSF) till present.



### **Ahmed Dabbagh**

Dr. Ahmed Dabbagh is Advisor, Research & Development at Emirates Identity Authority. He was Manager of Technology & Services Development at the UAE Advanced Network for Research and Education "Ankabut". His main work is to enhance collaboration between the different Higher Education Institutions over UAE, by using the stat-of-the-art technology to connect and communicate and to create a common sense in research and education, like eLearning, eLibrary and Grid Computing. Dr. Dabbagh is leading the UAE initiatives in Grid-Cloud Computing and the Certification Authority. Prior to joining Ankabut, Dr. Dabbagh was the Director of the Academic e-Services Department at Ajman University of Science and Technology, UAE. Dr. Dabbagh was working in France & Germany for several years in the domain of micro-controllers and a wide range of micro-processors architectures ranging from 16 bits up to 64 bit with the very known Semiconductors industry like STMicroelectronics, Siemens and Motorola. He is the inventor of several patents in this important field. Dr. Dabbagh gained a Master of Science "D.E.A." in Images and Signal Processing from the University of Rennes in 1991 and a PhD in Telecommunications from the University of Rennes, France, in 1995.



### **Ahmed Hassan**

Ahmed Hassan Yousef is an associate professor in the Computers and Systems Engineering Department, Ain Shams University since 2009. He is the vice director of the Knowledge and Electronic Service Center (EKSC), Supreme Council of Universities, Egypt. He was the director of the information and communication technology project (ICTP) in higher education in 2012 and the founder of TOP IT, a company that is specialized in IT Training on the international level, in 2000. He got his Ph.D., M.Sc. and B.Sc. from Ain Shams University in 2004, 2000, 1995 respectively. He works also as the secretary of the IEEE, Egypt section since 2012. His research interests include Data Mining, Software Engineering, Programming Languages, Artificial Intelligence and Automatic Control, Technology in Education.



## Albert De Roeck

Prof. Dr. Albert De Roeck is a senior research scientist and staff member of the largest particle physics laboratory in the world, CERN, located near Geneva, Switzerland. CERN is the home of the new particle accelerator: the Large Hadron Collider (LHC). De Roeck is also a professor at the University of Antwerp (Belgium) and a visiting professor at the Institute of Particle Physics and Phenomenology in Durham (UK), University of California Davis (US) and the British University in Cairo (Egypt). He obtained his PhD at the University of Antwerp on an experiment at CERN, studying the multi-particle dynamics in hadron-hadron interactions, by colliding meson beams on protons and nuclear targets. After his PhD, De Roeck spent 10 years at the German particle physics laboratory, DESY, where he and his team made very precise measurements of the quark and gluon structure of the proton, and performed precise tests of the strong force. At the end of the 90's his interest turned to the possibility to discover new physics at future particle colliders, in particular Supersymmetry and Extra Dimensions, and he returned to CERN. He first joined an experiment at the large electron-positron collider LEP, studying the strong force and searching for signals of new physics. During the last ten years, he played a significant role in the preparation of one of the experiments at the LHC: the Compact Muon Solenoid (CMS). De Roeck is one the leaders in the CMS physics program and actively involved in physics analyses. De Roeck was also the deputy spokesperson of the experiment in 2010 and 2011. He was the convener of the Higgs search physics group in 2012-2013, and had a leading role in the discovery of that particle in July 2012 in the CMS experiment.

He regularly gives seminars and lectures all over the world on the physics potential and results of the LHC project, and appears regularly in Television or Radio programs. In 2010 Prof. De Roeck got a doctor honoris causa degree from the University of Helsinki, Finland. Co-author of more than 1000 scientific papers and an h-index of 117, as an experimentalist he also has also been collaborating closely with leading theorists of the field.

### **Abstract:** "Experiments at the Large Hadron Collider at CERN: Challenges and Opportunities"

The Large Hadron Collider (LHC) has produced proton-proton collisions at a centre of mass energy of 8 Tera-Electron Volt (TeV). These are the most energetic collisions ever produced in the laboratory. The Large Hadron Collider is a circular atom smashers of 27 kilometers of length located 100 m underground at the CERN laboratory near Geneva, Switzerland. The LHC is probably the most complex scientific instrument build by mankind so far. Its science goal is to help us understand what the smallest building blocks of matter are, how they interact, and what the conditions were at the very beginning of the creation of our Universe.

Large experiments have been constructed at the four interaction points of the LHC, to detect and study the particles created in these high energy collisions. The results of the 2010-2012 data taking run have led to the much acclaimed discovery of the Higgs boson, a very new kind of fundamental particle that helps to explain why the Universe is as we observe it.

This overview will discuss the Large Hadron Collider complex and its main experiments. Cutting edge technologies have been used and are further planned for the upgrades of the present detectors. The plans for the next 20 years at the LHC will be discussed. Opportunities for Arab states in joining the CERN science program will be presented.



## Alexander van den Hil

Alexander van den Hil is product manager for SURFnet's national and international network services. This includes SURFinternet, SURFlightpaths and NetherLight, SURFnet's open lightpath exchange for global R&E and commercial traffic. As such he is responsible for outlining the service portfolio of the SURFnet network. He is also international relations manager at SURFnet.

Alexander studied information technology and information management at the University for Applied Sciences in The Hague. He started his career at the technical university of Eindhoven where he managed the tele- and datacommunications team. He has experience over many years in the management of networking for research and education.

### **Abstract:** "SURFnet: Network Services and International Collaboration"

SURFnet's mission is to boost the quality of higher education and research through the support, innovation, development and operation of an advanced and interconnected ICT infrastructure, enabling the potential of ICT to its full extent. In this way SURFnet is working to create a connected world in which simple and reliable tools are available to ensure universal connectivity and access.

SURFnet7 is the latest SURFnet network generation, and offers new connectivity features such as the Multi Service Port (MSP). MSPs allow users to connect to the SURFnet7 network in new ways. They can be simultaneously connected to multiple network services such as lightpaths. New lightpaths can also be added to an MSP very easily. SURFnet has developed software to allow users to setup lightpaths independently

SURFnet7 is available in locations in the Netherlands and its neighboring countries via an 11,000-km fiber optic network. Connections between the core locations around the country are illuminated using SURFnet's optical equipment. This equipment allows the fibers to be illuminated at different wavelengths.

NetherLight is SURFnet's open lightpath exchange: Any party can join and link up with an unlimited number of connected other parties. NetherLight brings cloud services over lightpaths, which in turn enable collaboration with parties outside the campus network without losing control. Research universities and universities of applied sciences that have a Multi Service Port on SURFnet7 can use the available bandwidth to easily set up a light path to parties on NetherLight and to each other.

NetherLight also has excellent access to networks outside the Netherlands. SURFnet GEANT and other National Research and Education Networks have international network connections to NetherLight that can be used for applications in their respective fields. Cities around the world, including Chicago, New York, London, Geneva, Prague, Hamburg, Copenhagen, Moscow, Thuwal, Taipei, Doha and Seoul, are connected to NetherLight. NetherLight is therefore part of the Global Lambda Integrated Facility (GLIF). Numerous international destinations can be reached through this global collaboration, which comprises network connections and open exchanges.

To keep NRENs well-connected SURFnet collaborates closely with other NREN at individual, GEANT or global scale. One of the example projects is titled the "Advanced North Atlantic 100G" or ANA-100G. The goal is to stimulate the market for 100 Gbps intercontinental networking and to advance global networks and applications to benefit research and education.



### **Ali Yazici**

Prof. Dr. Ali YAZICI is a full-time Professor and the Chairman of the Software Engineering Department at Atilim University, Ankara, Turkey. He received BS (1972), and MS (1974) degrees in Mathematics from the Middle East Technical University (METU), Ankara, Turkey. He has completed his PhD dissertation (1983) at the Computer Science Department, Waterloo University, Canada. His research interests include Symbolic Computing, Parallel Computing, Cloud Computing, Database Systems, and e-Topics. In the last 30 years he has been affiliated as a full-time academic staff with Middle East Technical University, TOBB University of Economics and Technology, and Atilim University (Turkey), Yarmouk University (Jordan), and Sultan Qaboos University, (Oman). During his academic career, he acted as thesis supervisor of about 30 MS and PhD students. He is the author/co-author of more than 100 articles, books and research reports in the field of Computing and Informatics. Among many others, he is involved in "Promoting Turkey's LLL" EU project between 2010-2012 as a consultant and trainer. He is a founding member of Turkish Mathematics Foundation (1990- ), an associate member of Turkish Informatics Society (1985- ), and a founding member of Turkish Informatics Foundation (1990- ).

#### **Abstract:** "Lifelong Learning (LLL): A Roadmap for the Developing Countries"

Lifelong Learning (LLL) is defined as all learning activities undertaken throughout life with the aim of improving knowledge, skills and competences, within a personal, civic and social and/or employment-related perspective. This article aims at discussing the main issues in LLL, using the approach in the European Union countries. Challenges in Turkey's recently completed European Union (EU) project "Promoting LLL in Turkey", and the current situation in the Arab world in the same context are summarized. Based on these cases, a roadmap and a set of recommendations for LLL in developing countries are given.



### **Aniyan Varghese**

Dr. Varghese at the European Commission in DG CONNECT is responsible for the co-ordination of international co-operation for the Directorate Excellence in Science. He is also focusing on the development and implementation of the strategy for High Performance Computing in EU and e-Infrastructure for research. Prior to it he was responsible for the policy development and implementation of interoperable electronic identity management for eGovernment services in the EU, and also for eGovernment research.

He has wide experiences at the Commission in policy development and research programme management in eGovernment, trust and security, software systems, and new methods of work.

Dr. Varghese also has number of years of industrial experience, working on radar and displays, air traffic control systems and naval command and control systems, four years of it as Advanced Technology Manager. He has published number of articles and has given presentations at many conferences and seminars.



### **Anna Rajab**

Dr. Anna Rajab (MD, DCH (IRE), MRCP(UK), PhD) is Consultant Clinical Geneticist and Director of National Genetic Centre at the Ministry of Health, Sultanate of Oman. She has experience in clinical Neonatal medicine, General Pediatrics, Clinical Genetics Service. In the research field, she worked on research in Clinical Genetics and Population Genetics of Omanis led to completion of Ph.D. Thesis "The Impact of Genetic diseases in Oman" in 1997, and research in collaboration with centres of Excellence in USA, UK, Germany and Netherlands carried out to improve care of Omani families affected by genetic diseases.

Dr. Anna got many international consultancy awards and honours: 1991 Advisor to the World Health Organization on research in Medical Genetics, Alexandria, Egypt. 2004 Advisor to World Health Organization (Genetics & Biotechnology) in Teheran, Iran. 2005 World Health Organization Award for research in Down Syndrome. 2008 Advisor to IPC of European Commission on "Capacity Building for the transfer of genetic Knowledge into practice and Prevention". 2010, 2011, 2012 Advisor to European Commission - Joint Research Centre and Institute for Health and Consumer Protection (IHCP) on Genetic Testing in Emerging economies. 2012 Advisor to the World Health Organization on research in Medical Genetics in Geneva, Switzerland. 2012 Shaikh Hamdan Award for Distinguished Personalities in Arab World. 2014 Honorary Consultant to BGI

#### **Abstract:** "Development of Genetic Services in the Sultanate of Oman"

The Sultanate of Oman is a rapidly developing Muslim country with well organised Government funded healthcare services, including primary, secondary and tertiary levels of care and rapidly expanding medical genetic facilities. At the present time the Omani population is characterised by a rapid rate of growth, large family size, consanguineous marriages, and the presence of genetic isolates. The preservation of a tribal structure in the community coupled with traditional isolation has produced unique and favourable circumstances for building genealogical records and the study of genetic disease. Genetic services developed in the Sultanate of Oman in the past decade have become an important component of healthcare. The support in education, technology transfer, and research in collaboration with the C. Walch Laboratory at Harvard Institute of Neurology (USA), Weill Cornell College (USA), Institute of Human Genetics at Humboldt University (Berlin, Germany), Genetic Department of St-George's Hospital Medical School (UK) and Leiden University (Netherlands) paved the way to success. The recently built National Genetic Centre in Muscat is expected to meet the needs of the Omani population in provision of genetic services and research, in a manner deferential to the cultural and religious traditions of the country.



### **Antonio Sanfilippo**

Dr. Antonio Sanfilippo is Research Director at Qatar Foundation R&D. His focus is on developing a National Computing Infrastructure for Research, which includes the Qatar Foundation Research and Education Network. From 2003 to 2014, Dr. Sanfilippo was Chief Scientist at Pacific Northwest National Laboratory (PNNL), where he led research grants on emergency response (Department of Homeland Security, DHS), modeling the scientific workforce (National Institutes of Health, NIH), gene network prediction in stroke (NIH), and science of science and innovation policy (National Science Foundation). From 2007 through 2011, he directed a four-year advanced research program on predictive analytics with projects on security, energy and environment applications. In 2004-2005, he headed a consortium of five national laboratories that established the Motivation and Intent thrust area at DHS and led the PNNL team in this effort through 2009.

Prior to joining PNNL, Dr. Sanfilippo worked as R&D Director in the private sector, providing strategic vision, competitive intelligence and leading the development of new products. From 1998 to 2000, he served as a senior consultant within the European Commission, overseeing research consortia and organizing promotion, consultation and dissemination events. While at SHARP Laboratories of Europe, from 1992 to 1998, he supervised linguistic development activities in the Information Technology group. Prior to joining SHARP, Dr. Sanfilippo was a Research Associate at the Centre for Cognitive Science (Edinburgh, UK) and the Computer Laboratory (Cambridge, UK). Dr. Sanfilippo holds M.A. and M.Phil. degrees in anthropological linguistics from Columbia University (USA), and a Ph.D. in cognitive science from the University of Edinburgh.



### **Aouaouche El-Maouhab**

Aouaouche El-Maouhab is leading Networks Division at CERIST, working on information networks technologies where she is involved in technical and project management aspects of a number of national e-infrastructures activities as the research and academic network ARN and DZ e-Science GRID services.

She is also the Manager of Algerian ccTLD ".dz" and the Algerian IDN ccTLD ".dz". Actual interests concern networks technologies (management, e-infrastructure, services, modelling ...), process management in complex environment and ICT for e-services (cloud, grid, e-library, e-learning, etc.). She is the manager of Algerian NREN "ARN" and Algerian NGI DZ e-Science GRID and participates to EUMEDCONNECT and EumedGRID EC projects.



## Barend Mons

Prof. Dr. Barend Mons holds a chair in Biosemantics at the Leiden University Medical Centre and is Head of Node for The Netherlands in ELIXIR. In addition he acts as a Life Sciences 'eScience integrator' in the Netherlands e-Science centre. Barend is also a member of the Executive Committee of the IMI project Open PHACTS, and one of the Founders of the Concept Web Alliance. He also serves on several Scientific and Technical Advisory Boards. Currently, he also advises a startup company that was built around nanopublications, called EURETOS.

Barend is a molecular biologist by training and received his MsC in Biology (cum laude) in 1981 and his PhD in 1986 on genetics of malaria parasites, from Leiden University, The Netherlands. Subsequently he performed over a decade of research on malaria genetics and vaccine development in close collaboration with colleagues in developing countries. He served the research department of the European Commission in this field for 3 years as a seconded national expert and did gain further experience in science management at the Research council of The Netherlands (NWO). Barend was a co-founder of three spin-off companies in biotechnological and semantic technologies, and an advisor for several others.

In the year 2000, Barend switched to the development of semantic technologies to manage big data and he founded the Biosemantics group. At present, Barend is Professor in Biosemantics at the Department of Human Genetics at the Leiden University Medical Centre with an honorary appointment in the same discipline at the Department of Medical Informatics, Erasmus Medical Centre, University of Rotterdam, both in The Netherlands. From 2009-2014 he was also Scientific Director of the Netherlands Bioinformatics Center (NBIC) and board member of the interim ELIXIR international board. His research is focused on nanopublications as a substrate for *in silico* knowledge discovery.

### **Abstract:** "Data Stewardship, Boring or Soaring?"

In the eScience era, meaningful pattern recognition in high dimensional and complex data has a major contribution to knowledge discovery in science, specifically chemistry and biology, whether it be in drug discovery or materials development. In order to optimally (re-)use data for this purpose, the data need to be machine-readable. However, many key data sets and databases are not in enabling formats and most research projects do not even have a "data management plan" that deals with the generated data for the duration of the project. Many key data sets therefore go unnoticed or worse, get lost. Data stewardship emphasizes the long-term availability of data for continued use in human and machine meta-analyses. This talk will cover aspects of data publishing in FAIR format (Findable, Accessible, Interoperable and Reusable). It will also show how well stewarded data can serve "*in silico* knowledge discovery" and may change the metrics of scientific attribution. Specifically interaction between traditionally separated chemical and biological data will be addressed.



## Brahim Lagoun

Mr. Lagoun Brahim holds Bachelor's degree in mathematics 1990 and License Physique ENS Kouba, Algeria 1990-1994. He was a teacher for the secondary education 1994-2010. He also holds master degree in physical - chemistry of materials 2008. Currently, Mr. Lagoun is a researcher at laboratories of science fundamentals and teacher researcher at Laghouat University, Algeria. He is also a researcher at physics laboratory materials Laghouat University, Algeria 2014. He is recently appointed as head of the HCP project of the University of Laghouat. The oral presentation of PhD in physics will be to the end of 2014.

Mr. Lagoun has the following publications and communications: "Pseudopotential calculations of electronic structure and second order optical susceptibilities of  $\alpha$ -Li<sub>2</sub>O<sub>3</sub>" B. Lagoun, B. Bentria, I-K. Lefkaier .International Conference on Knowledge Discovery and Databases: Materials Informatics and DFT. Oran, Algeria 11-13 October 2008. "Ab initio investigation of the elastic and piezoelectric properties of lithium based Chalcogenides LiMX<sub>2</sub> (M = Ga,In; X = S,Se)": B. Lagoun, B. T. Bentria, B. Bentria. Computational Materials Science, 68, 379-383 2013. "Ab initio calculation of structural, electronic and linear optical properties of NaI<sub>3</sub>O<sub>8</sub>" B. Lagoun, A. Guedouh, I-K. Lefkaier, B. Bentria. Novel 2D materials: tuning electronic properties on the atomic scale. University of Bremen, Germany 2013. "Ab initio calculation of structural, electronic and optical properties of Hg(IO<sub>3</sub>)<sub>2</sub>" B. Lagoun, B. Bentria, I-K. Lefkaier. *Physica B*, 433, 117-121 2014.

### **Abstract:** "ABINIT, a First Step on GRID Infrastructures under CHAIN-REDS Project"

The development that humanity lives with a very high speed, and the requirement of society to preserve the environment, opens new challenge to scientists (physicists and chemists) to develop new, more efficient materials with properties well defined. In this context intervene the simulation discipline in materials science, specifically the ab initio calculations. View the performance of DFT (density functional theory) to predict the properties of a set of atoms (molecules, clusters, bulk, surfaces and interfaces), in addition, relatively rapid computations compared to other methods since the latter depends only on the electronic density, the number of papers published last two decades has evaluate exponentially, so it has become the main actor in the simulation domain. To facilitate to the scientific community performing calculations in the framework of the DFT. The ABINIT code was chosen view these advantages as a first experience of code implemented in grids enjoying the collaboration between several organizations and countries.

ABINIT code has been deployed first on DZ e-Science GRID, the Algerian GRID infrastructure. To facilitate access to GRID infrastructures, ABINIT has been integrated recently, through CHAIN-REDS and Algerian Science Gateways after a specific development based on JSR 286 portlet. This work has been achieved with the contribution of INFN team at Catania under CHAIN-REDS project and DZ e-Science GRID team with researcher from Laghouat University in Algeria. So, researchers using ABINIT can run both sequential and MPI-based versions of ABINIT successfully deployed on Arab, European and Latin American sites.



### Bremananth Ramachandran

Assoc. Prof. Dr. R. Bremananth has received Ph.D. degree in 2008 from Computer Science and Engineering Department, PSG College of Technology, Anna University, Chennai, India. He has completed his Post-doctoral Research Fellowship (PDF) from the School of Electrical and Electronic Engineering, Information Engineering (Div.), Nanyang Technological University (NTU), Singapore, in 2011. Before joining NTU, Singapore, he was a Professor and Head, Department of Computer Science and Applications, in India. He has totally 22 years' experience in teaching, research and software development at various institutions. Currently, he is an Associate Professor for Information Technology, IST department, Sur University College, Sur, Oman, affiliated to Bond University Australia. He is an associate editor of various International Journals in USA and He is an active reviewer of various IEEE, IET Journals, Transactions and Conferences. His fields of research are Artificial Intelligence, Acoustic imaging, Biometrics, Computer vision, Computer network, Data structures, Human computer interaction, Image processing, Microprocessors, Multimedia, Pattern recognition, Software engineering, and Soft computing.

Dr. Bremananth received the M N Saha Memorial award for the Best Application Oriented paper in the year 2006 by Institute of Electronics and Telecommunication Engineers (IETE). His continuous contribution of research was recognized by Who's who in the world, USA and his biography was published in the year 2006. He is a member of Indian society of Technical Education (ISTE), Advanced Computing Society (ACS), International Association of Computer Science and Information Technology (IACIT) and Institute of Electronics and Telecommunication Engineers (IETE).

#### **Abstract:** "An efficient Approach of e-Iris Enrolling and Authentication for FS e-Apps"

E-Enrolling and authentication is an essential task for any kind of e-apps (e-applications). In this paper, a frame work has been proposed on how to provide the e-enrolling and authentication for Financial Sector (FS) e-apps. E-iris and e-imaging security in the exiting official communication is an essential and challenging task in the present scenario. We suggest a method of e-imaging and feature extraction and provide e-authentication. A proposed frame work consists of e-enrolling related issues, e-authentication, cryptography for authenticating e-users, and e-iris sign in FS. Unlike other biometrics such as the fingerprint, palm, gait, retina, face, eras, and lips, the iris biometric is the best choice for deploying with the exiting e-apps. Because, an iris has many distinctive textures which are aptly computed and discriminated diverse e-users. In the e-enrolling, e-user has to enrol iris features through a Java run time (JRE) interface. A sequence of algorithm has been performed to localize e-user's iris and extract features. On successful enrolment, e-user can access FS e-apps based on the diverse level of options. Unlike traditional e-apps, e-iris system can provide more secure communication and avoiding multiple verifications. As result computational complexity of existing e-apps has been reduced by developing e-iris frame work. In addition, iris patterns of both eyes are chaotically distributed and well-matched to grant authentication to the genuine e-users throughout their lifetime with a single enlistment. In this frame work, we suggest e-imaging phase, e-authentication, cryptography tunnelling, recover procedures, and deployment of e-iris system with existing FS e-apps. The proposed frame work has been implemented in JRE and tested with diverse kind of e-users in different real-life scenarios. This paper also includes some of implementation issues of e-iris system in the e-apps.



## Brook Schofield

Brook Schofield joined TERENA in June 2009 as one of the Project Development Officers, to support task forces and contribute to the technical programme.

He is responsible for a portfolio of middleware activities focusing on the deployment and promoting the use of middleware & federated technologies and policy for the campus and organisational level including the expansion into Central Asia via the CAREN project, the ASREN region via the EUMEDCONNECT3 project and Latin America via the ELCIRA project. He is a participant in the ELCIRA project focusing on developing eduroam and identity federations and their interfederation via eduGAIN.

Within the GN3plus (GÉANT) Project, Brook is the task leader for the eduGAIN interfederation service, which supports over 30 federations and collaborates within REFEDS to broaden this service throughout the global R&E federation environment.

Brook is the Secretary of the Global eduroam Governance Committee (GeGC) which coordinates the organisation of eduroam. He is also a member of the operation team within the GÉANT eduroam activity.

Brook graduated from the University of Tasmania in 1998 with an honours degree in computing. He has worked for an Internet Service Provider, a variety of universities in Australia (UTAS, UQ, Griffith, UniSA) and the JISC RSC in the South West of England. As chair of the AARNet eduroam Project Group he helped in the expansion of eduroam in Australia and the Asia Pacific region. This brought him to Europe and TERENA.

### **Abstract:** "Increasing eduGAIN Participation through the Evolution of Federation Development"

The NRENs portfolio was originally a suite of connectivity, bandwidth and network services. As the student and researcher population become more mobile and the plethora of services available via the cloud meet the collaboration needs of our community, the link to these tools is no longer IP but your identity and through eduGAIN your identity can access services worldwide.

What's the best path to bring these services from the institution, the NREN, neighbouring NRENs and the world to allow a pool of resources to be available at your fingertips for research with seamless access. These are the challenges that have been tackled by identity federations as they grow and mature and embark on interfederation to increase the sharing of services and identities. How can the ASREN community best participate in this federated future?



### **Carlos Oliveira**

Carlos OLIVEIRA is Head of Sector at the European Commission in DG CONNECT (Communications Networks Content and Technology) at the Programme Coordination Unit. He is responsible for the co-ordination of international cooperation aspects of ICT (Information and Communication Technologies) research and innovation in Horizon 2020. He is also in charge of the coordination of the ICT European Technology Platforms and Public Private Partnerships and for managing the CONNECT Advisory Forum – the Advisory Group composed of renowned experts from academia and industry advising the Commission on the orientations for ICT in Horizon 2020.

Prior to it he was in charge of the interim evaluation of the ICT thematic priority of the former FP7 research programme. He was also actively involved in the implementation of EU research programmes in areas such as e-learning, digital libraries, digital preservation, e-commerce. Beyond this wide experience at the European Commission in policy development and research programme management, Carlos Oliveira worked for nearly 10 years in computer and communication systems in the telecommunications industry.

Carlos holds MSc and BSc degrees in Computer Systems and Telecommunications Engineering by the Technical University of Lisbon and an MSc in Public Policy by the London School of Economics and Political Science.



### **Dahir Hassan**

Dahir Hassan is deputy Rector for Planning and Development at SIMAD UNIVERSITY, which is a founding member of Somali Research and Education Network (SomaliREN). He became the first Chief Executive Officer at Somali Research and Education Network (SomaliREN) in January 2009 as a volunteer and his first term expires January 2015. During his tenure, he managed to secure SomaliREN's membership from Ubuntunet Alliance: The African Research and Education Network.

Mr. Hassan started a process that leads SomaliREN to become a shareholder of Arab States and Research and Education Network (ASREN), while he attended e-AGE held in Amman, Jordan.

His prime responsibilities was to realize landing of fiber optic in Somalia, in particular, the EASSy cable serving Mogadishu became operational in January 2014 while the first phase of a network constructed by SOMcable to link Hargeisa to internet connectivity in Djibouti was switched on in June 2014. There are plans to extend this connectivity further into other parts of the country.

SomaliREN has been established with the initial participation of 7 universities as founding members, but now has 14 members, while 12 universities applied for memberships in 2014 alone.

Established a close relationships and partnerships with many institutions and organisations among others European Union, Turkish International Cooperation and Coordination Agency (TIKA). Under his leadership SomaliREN also benefitted from technical assistance from the Royal Swedish University (KTH).

Now working with EU on Covering the costs of a counterpart investment of \$380k to enable Somalia to participate in the AfricaConnect[ program and leverage EU funding. The AfricaConnect project aims to establish a high-capacity Internet network for research and education in Southern and Eastern Africa to provide the region with a gateway to global research collaboration.



### **David West**

David West joined DANTE in 2001 and has lead and managed regional research and education networking projects outside Europe. He has run the EUMEDCONNECT project providing regional networking for North Africa and Middle East since its outset in 2004. He has also developed regional networks across South and South East Asia (TEIN2 and TEIN3, 2004 – 2012), and Central Asia (CAREN since 2009). He also contributes to DANTE's core-business of building and operating the pan-European Network, GEANT and its global relationships.

Previously David was a senior manager at British Telecom for 15 years in a number of international roles to develop and manage new international network services and business development projects for BT's global division and its overseas partners. He is educated to postgraduate level.



### **Eesa Bastaki**

Dr. Eesa Bastaki is President of the University of Dubai and former CEO of the ICT Fund where he actively led the effort to create an eco-system in the UAE ICT industry, by encouraging entrepreneurship, funding R&D projects and University scholarships and implementing ICT initiatives at the school level.

During his distinguished career he held many senior posts including Director of Education & Technology at the Dubai Silicon Oasis Authority (DSOA), Chairman of the Energy Section at the UAE University (UAEU) and Chairman of the Technology Section at the Technology & Energy Research Center of the UAEU. Dr. Bastaki is one of the founders of DSO and RIT-Dubai, and he is the founder of the IT Center in Al- Ain Municipality.

Dr. Bastaki's current professional activities include Chairman of the Technical Committee for the Emirates Energy Awards, Chairman of the Board of the Emirates Science Club, and Member of the Board of the Cultural & Science Association.

Born in Dubai, Dr. Bastaki is a UAE national scientist and researcher; he studied abroad where he received his B.Sc. and M.Sc. degrees in Electrical Engineering from the University of California, San Diego and Ph.D. from the University of California, Irvine. His research interests are Multiple Access Communications, Coding and Synchronization.

Dr. Bastaki is the recipient of Sheikh Rashid's Award for Scientific Excellence. In 2009, he received the UAE's highest award "The Emirates Awards for Science, Arts and Literature" in sciences. In 2014, he received the Middle East "ICT and Knowledge Development CEO Excellence Award".



## **Elgilany Ahmed**

**Abstract:** "Interrelation of Crop Productivity and Household Food Security in North Sudan"

This paper represents one of numerous studies on food security in Sudan with emphasis on the interrelation of resources use efficiency and food stability. However, the country is endowed by vast agricultural resources which are regarded as sufficient to generate adequate food to achieve self-sufficiency and might be expected to be exported to other neighboring countries. Recent studies showed that one out of three Sudanese suffered from food deprivation. The prevalence of undernourishment was 31 and 34 percent for urban and rural populations, respectively. This research aims to develop field crop productivity over the rural tenancies, farm sustainability by assessing food security situation and to design a route to respond to different threats of food insecurity in Sudan. Primary data were collected by using structured questionnaires on seventy randomly selected respondents from public irrigated schemes of River Nile State. A linear programming technique was used to assess the optimal combination of resources used for producing field crops under study. The discussion then turns to the multiple threats to food security and available empirical indicators of food security. Finally, Sudan as a nation has numerous advantages and opportunities with vast agricultural resources, wealth of livestock and underground resources including oil. It also faces numerous challenges in the form of inequality in allocation of resources between urban and rural areas, conflicts in different parts of the country, lack of investment in infrastructure. The paper concluded that resources use efficiency and crop yield improvement could be assessed as a golden route to food security and livelihood improvement especially in the rural areas where the majority of the hungry and poor live and agriculture is regarded as the dominant activity.



## **Elisabetta Zuanelli**

Full Professor Digital Communication, University of Rome «Tor Vergata», Department of Enterprise, Government, Philosophy. President of the Center for Research and Development on EContent (CReSEC [www.cresec.com](http://www.cresec.com)) University of Rome «Tor Vergata».

1983 – 1994: UNESCO consultant in language education and planning sociolinguistics (Paris).  
 1987 – 1992: Counsellor on Public Communication at the Presidency of the Council of Ministers.  
 1993 – 2004: Head of the Department of organisational-computing sciences/international-communicational sciences at the School of Economy and Finance (SSEF), Ministry of Economy and Finance.  
 Since 2005 EU Expert in the European Union on eContent Plus and security project.  
 Evaluator of projects 2005-2006.  
 Since 2010 Member of the Scientific Committee/ International Referee for IEEE / MEEM (Institute of Electrical and Electronic Engineers, Multidisciplinary Engineering Education Magazine).  
 Since 2012 Expert for the Ministry of Education and University in Industrial Research Projects.  
 Since 2013 Coordinator on information security observatory (University of Rome "Tor Vergata", Center for National Research, Guardia di Finanza).  
 President and R&D responsible of Pragmema srl (digital architecture and Internet design) [www.pragmema.it](http://www.pragmema.it)

Research Themes: Semiotics of interface design, technology architectures, elearning; intelligent platforms and digital services; search engines development research.

Publications: 21 books and a number of essays on theories of information and communication, educational planning, institutional and digital communication (knowledge and communication architectures, elearning platforms and content, search engines).

**Abstract:** "Aquenergy: a Transboundary Platform for Water and Energy Information Availability"

The demand for water and energy in multiple uses is growing in every country even though the resources are limited in quantity and quality. Moreover, dryness and floods make water an increasing factor of risk and energy supplies represent a present vital issue. The local, national and supranational energy supplience is one of the most important current issues. In the international context, procurement, cost and financial logic are of interest for individuals, businesses, public institutions, research and education. At the transboundary level, water and energy become a relevant policy, a cooperation and peace issue.

Laws, policies, research, planning and management, both from a public and a private perspective, require the identification, sharing and monitoring of good quality information. Knowledge of the water and energy resources, initiatives, research activities require participation of different actors and users, information and communication for experts and general public, research and education. An added value is represented by the provision of information security mechanisms. All these are essential elements in the global perspective of the World Wide Web, although still goals to be achieved.

Although the Internet offers big opportunities to the identification, sharing and monitoring of good quality information the current situation in the water and energy sector is still that of a high fragmentation, a scattering of sources and a lack of common criteria for sharing and monitoring information in a cost-effective way. In order to achieve this target we have developed an advanced digital communication tool [www.aquasearchportal.it](http://www.aquasearchportal.it) for a cost/effective information sharing and, basically, for improving water governance at the different levels. The Aquasearchportal is in fact proposed as an innovative and practical solution to the growing need of pertinent, useful, reliable and comparable data, indicators and information, both qualitative and quantitative. It is based and developed on former implementations, experiences and outcomes in several domains, such as training, administration, research and education.

The presentation will deal with aims, content, characteristics and technological roadmap for the project through steps and organization of the Aquenergy platform. The proposal aims at the implementation of the water platform/search engine extended to energy contents by means of collaboration of a specific network of stakeholders: institutions, companies, academics and students.



## Fahd Batayneh

Fahd A. Batayneh is a staff member of ICANN's Stakeholder Engagement Team. He works as a Coordinator for the Middle East region since October 2013. Prior to ICANN, he held several positions within Jordan's National IT Center (NITC) last of which was managing both the ccTLD and IDN ccTLD of Jordan.

Fahd has attended ICANN meetings on regular basis since 2008, and was active in several working groups. Other than his day job with the government of Jordan, Fahd has provided many consultancies related to Internet Governance, New gTLDs, and Internet Policy Development. He holds a B.Sc. in Computer Engineering with honours, and an MBA. He is married, and has two sons. Fahd is based in Amman, Jordan.



## Fahem Al Nuaimi

Fahem Al Nuaimi was appointed Chief Executive Officer of National Research & Education Network (Ankabut) and assumed his duties in December 2011. Fahem is responsible for the overall direction and vision of the Ankabut. For the past 21 years Fahem has enjoyed various roles within the UAE telecommunications industry including network, program management and budgeting. He led the introduction of fiber-to-the-home networking in Etisalat and was the launch director for the latest version of IPTV. He also established the first PMO office for engineering and IT within Etisalat. He most recently served as Vice President of Technology Strategy Planning Etisalat. Fahem graduated with a Bachelors of Engineering from UAE University in 1990, and an MBA from Sothern New Hampshire University – USA in 2003. He is currently completing his doctorate in strategic management at Asia e University Malaysia.



## Federico Ruggieri

Prof. Federico Ruggieri is Director of Research at INFN (Italian Institute for Nuclear Physics) and Head of the Computing and Storage Department of GARR, the Italian Research and Education Network. In INFN he works on On-Line and Off-line Computing Systems for High Energy Physics experiments. He promoted the first GRID project approved by the European Commission EU-DataGRID. He was the Director of CNAF in Bologna, where he started the LHC TIER1 for Italy. He played also an important role in the development of the Networks for Research in Italy. Presently he is also the Project Manager of the CHAIN-REDS Project co-funded by the European Commission under the 7th Framework Programme.

### **Abstract:** "e-Infrastructures Technical and Organisational Challenges"

Research and Education need efficient communication and innovative services that can jointly be named e-Infrastructure. Several e-Infrastructures have been deployed in different regions of the world providing services ranging from the Network connectivity to Grid, Cloud and HPC Computing. Research and Education, however, is now globalised and Virtual Research Communities can address new scientific challenges thanks to the collaboration of groups distributed worldwide. European and non-EU e-Infrastructures have thus to interoperate to address the requirements of

cross-continental research communities. Moreover, new and emerging regional e-Infrastructures are customising existing technical and organisational best-practices to their specific region and National Research and Education Networks (NRENs) are providing new services on top of the high bandwidth trying to find a balance between scalability and pervasiveness. These evolutionary paths are challenging both the technical and organisational aspects of e-Infrastructures. Coordination and harmonisation of e-Infrastructures among different regions of the world is the aim of the CHAIN-REDS project. The presentation shows the current achievements of the CHAIN-REDS project and the technical and organisational challenges that NRENs and Regional e-Infrastructures have to face today and in the near future.



### **George Loftus**

Mr. George Loftus serves as the Associate Vice President, Network Services for Internet2. Prior to being named to this position in September 2012 he served in an interim appointment to assist in the direction and coordination for the overall program and activities for Internet2 Member Relations & Marketing/ Communications. Prior to joining Internet2, Loftus served as the President and CEO of OSHEAN, Rhode Island's non-profit research and education network from its founding in 2000 until 2012.

Very involved in the higher education community and Internet2 for over a decade, Loftus has served on the Internet2 Board of Trustees as chair of the Architecture and Operations Advisory Council (AOAC). Those roles were relinquished prior to joining as staff at Internet2. As a recognized leader in the state and regional network community, he has also served as chair of The Quilt, the national coalition of advanced regional networks for research and education. Loftus brings to Internet2 his wealth of experiences and relationships with Internet2 leadership and acquaintances with many community leaders.

He earned his Bachelor of Science Degree in Business Management from Salve Regina University. Loftus is based in Newport, Rhode Island, United States.



### **Greg Cole**

Greg Cole is the Principal Investigator and developer of the Global Ring Network for Advanced Applications Development (GLORIAD). Greg has a long 20-year history in global advanced networking, having developed and managed the multi-national GLORIAD and predecessor US-Russia MIRnet and NaukaNet programs since 1997.

His experience includes cross-cultural social networking, local community network infrastructure development, and global R&E cyberinfrastructure development and management. In addition to almost \$20M funding from the US National Science Foundation, Greg's global networking initiatives have been supported by US Department of State, the US Agency for International Development (USAID), Eurasia Foundation, Ford Foundation, Sun Microsystems, NATO, Cisco, Tata Communications, Tyco Global Networks and several others. Under his leadership, GLORIAD has developed and maintained a global, highly federated and decentralized management and a vast public/private partnership connecting science and education communities around the world.

**Abstract:** "GLORIAD: The Next Generation of Innovations, Services, Communities and Leaders"

Beginning work in 1997 deploying the first R&E network connecting the US and Russia (MIRnet), the Global Ring Network for Advanced Applications Development (GLORIAD) has expanded and evolved through nearly 20 years of service into a loosely-organized community of individuals and organizations around the globe sharing core values about science collaboration via open networking and committed to building and cooperatively managing leading-edge information and communications infrastructure connecting scientists, educators and students through a grass-roots, bottom-up approach. The «ring of rings» GLORIAD network facilitates shared work on challenges common to all cultures in virtually all domains of science, education, health care and infrastructure. It is community-born, community-driven and community-led – ever evolving, synergistic, center-less, diverse, tolerant, informal and intensely purposeful – standing on the shoulders of and building on the good work of those who gave the world a common Internet infrastructure. While contributing partners include the US, Egypt, Russia, China, Korea, Canada, Netherlands, the Nordic Countries, India, Singapore and Malaysia, GLORIAD is open to all who wish to join and contribute; it is strongly affiliated with and committed to the openness, transparent governance and shared resources model of the GLIF ([www.glif.is](http://www.glif.is)).

- The presentation will briefly introduce the GLORIAD family, network and application communities-and then describe plans for a next generation of services, innovations, communities and leadership. Emphasis will be placed on describing science-responsive infrastructure given recent work on open exchanges, software defined networking, dynamic provisioning of network services and much higher link capacities (100 Gbps and beyond). GLORIAD's recent work on the InSight performance verification system will be introduced as well as its new ventures to «crowd source» operations, cybersecurity and science application support - leveraging broad community cooperation via information sharing and social media technologies. The presentation will conclude with a description of efforts to engage new communities around the world with a special focus on attracting young people into the areas of network research, operations, performance measurement and security.



**Guido Zebisch**

Project Director Mr. Guido Zebisch, holding an M.A. from Munich University in hermeneutics and linguistics, has been involved with ARABTERM since September 2011. Prior to his engagement with GIZ, he has gained thorough experiences in the Arab World with a number of internationally operating German institutions, e.g. the German Academic Exchange Service DAAD, the German Foreign Office and the Goethe-Institut where he served as a consultant and director of the German Cultural Institute in Yemen.

The challenge of ARABTERM, in his view, lies in the fact that it is an interdisciplinary approach bridging technical disciplines with linguistic policies: the GIZ approach, working with the Arab League's Cultural Organisation ALECSO on this dictionary project, is a promising combination.

**Abstract:** "ARABTERM, ALECSO's Technical Terminology Database. A Future Hyper-Platform"

**Issue:** The ground-breaking Arab Human Development Report 2003 pointed out that knowledge

transfer cannot take place when academic and vocational students do not dispose of a command of terminology in a precise way in their habitual language.

**Baseline:** The multidisciplinary project ARABTERM aims at creating opportunities of knowledge transfer for key technologies that have been identified as vital with regard to more sustainable absorption within the Arab world. The Technical Dictionary [www.arabterm.org](http://www.arabterm.org) is an online internet dictionary project jointly commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Arab League Educational, Cultural and Scientific Organization (ALECSO), and carried out by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in collaboration with ALECSO's division in Rabat, the Arabization Coordination Bureau (BCA).

**Rationale:** The consistent use of standardized reference terminology with regard to technical disciplines is a condition for the internationalization of more sustainable economic development throughout Arab countries. Terminological precision is required within a whole realm of domains, from legal aspects, to procurement, to research and development. ARABTERM will contribute, in the long run, to the availability of better skilled professionals who will subsequently access larger and more diverse work and market opportunities. In this way, ARABTERM will contribute, in the long run, to the conversion to an Arab knowledge society.

The [www.arabterm.org](http://www.arabterm.org) platform: ARABTERM offers a free platform for professional translation of technical terminology, and noteworthy, Arabic definitions, from and to Arabic, German, English and French. The dictionary is composed of different volumes covering Automotive Engineering, Water Technology, Renewable Energies, Electrical Engineering, Textiles, Transport and Infrastructure (up to 2014).

**Aim of intervention at ASREN:** The ARABTERM aims at creating synergies within the networks of the respective scientific communities by presenting these plans of upcoming content (for 2014-2016). Terminology shall be presented, further needs identified, and a call for participation in an experts' network shall be held, in order to enhance the quality of the terminological content (through revisions, updates) for mutual benefit between producers and beneficiaries, in the long run.



### Habib Youssef

Dr. Habib Youssef received an Engineering Degree in Computer Science from the Faculty of Science, University of El-Manar, Tunisia in June 1982 and a Ph.D. in computer science from the University of Minnesota, USA, in January 1990. From September 1990 to January 2001 he was a Faculty member of the computer engineering department of King Fahd University of Petroleum & Minerals (KFUPM), Saudi Arabia (Assistant Professor from 1990 to 1995 and Associate Professor from September 1995 to January 2001). From February 2001 to June 2002, he was a lecturer in Computer Science at the Faculty of Sciences of Monastir (FSM), University of Monastir, Tunisia. From July 2002 to August 2005, he served as the Director of the Higher Institute of Computer Science of the University of Monastir. Since January 2006 he is a Professor of computer science at the University of Sousse. From July 2007 to August 2011 he served as the Director of the Higher Institute of Computer Technology and Communication of the University of Sousse. Since October 2013, he is Director General of Khawarizmi Computing Centre (CCK), which is serving as a Data Centre and Internet service provider for the Tunisian academic community.

Dr. Youssef has over 170 publications to his credit in the form of books, book chapters, and journal and conference papers. He is the author with S. Sait of two books, (1) «VLSI Physical Design Automation: Theory and Practice», McGraw-Hill 1995, (also co-published by IEEE Press 1995), and reprinted with corrections by World Scientific in 1999, and (2) «Iterative Computer Algorithms with Applications in Engineering», IEEE CS Press 1999, and since 2003 published by John Wiley & Sons, which has also been translated into Japanese. He also recently co-authored the book «Radio Link Quality Estimation in Low-Power Wireless Networks», Springer Press 2013. His current research interests are computer networks, performance evaluation of computer systems, and combinatorial optimization.



### **Hafedh Yahmadi**

International ICT strategist with 23 years of engineering experiences in ICT business development projects. With a strong passion about the role of technology, the potential of ICT in emerging markets and the importance of diversity and inclusion in the ICT business development. Experience includes managerial roles with Top Tech Giants Corporations (Microsoft Inc. Alcatel-lucent) including development, implementation and supervision of a set of challenging ICT projects in USA, France, Gulf & North African countries.

Mr. Al Yahmadi is a holder of an ICT engineering diploma and an MBA degree from university of Southern California at Keller Graduate School of Management with concentration on business management. He is accredited as a Change Management Facilitator by Achieve Global, USA, and recognized by Microsoft Corp. as a certified trainer of the MS Learning Design of the 21st century, he is a member of the Arab IG Forum and ISOC.



### **Hisham Ibrahim**

Hisham is the Middle East Regional Program Manager at the RIPE NCC (in charge for training programs, technical support and relations with RIPE NCC members and the MENOG community).

Hisham brings over a decade of experience in the field of Internet technology and its governance. Prior to joining the RIPE NCC-ME office, Hisham held a number of senior technical positions including, IPv6 Program Manager at AFRINIC (2010-2014) and Network Operations Centre (NOC) Team Leader at the Egyptian Ministry of Communications and Information Technology (2005-2010).

Both from a technical and policy background, Hisham is active on several committees in various Network Operator Groups (NOGs), peering forums, IPv6 task forces and forums in Africa and the Middle East.

**Abstract:** "Bridging Gaps: ICT and Innovation in the Arab World"

This presentation will attempt to identify and analyse some of the current gaps that exist in the Arab world that are preventing us from being truly interconnected and innovative in the ICT domain.



## Imad Hoballah

Dr. Hoballah is the TRA Chairman and CEO since April 2010 and the Head of Telecom Technologies Unit since March 2007.

Dr. Hoballah leads the «Lebanese National Committee for the Transition to Digital TV», and has served on several «Security National Committees» including the «Pan Arab Observatory for Cyber Security and Safety». He chairs the «Arab Multistakeholder Advisory Group» (AMAG) of the Internet Governance Forum (IGF) the «ITU Council WG on Languages», the «ITU Radiocommunication CCV», and the «ITU Standardization Committee for Vocabulary». Since March 2008, he serves as Vice Chairman of the «Arab Spectrum Management Group».

In 2012, Dr. Hoballah was appointed Lebanon's Representative to the «ITU», to the «ICANN's Government Advisory Committee», as well as to the «IGF Arab Management Advisory Group», and serves on the «ICANN's ME Strategy Working Group».

Dr. Hoballah assumed the presidency of the «Arab Regulators Network for ICT» between 2011-2012. In 2011, he was elected as Executive Committee VP of the "Arab Infrastructure Regulatory Forum".

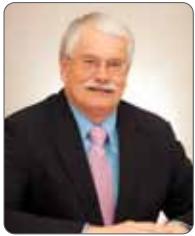
Dr. Hoballah served on the board of several corporations and assumed the role of CEO at Omnitel Media Networks. He held executive positions at Lucent Technologies, and AT&T Bell Laboratories in MENA and the US, including «COO and EVP for Services and PM».

Dr. Hoballah received a «Program for General Development Diploma» (IMD Lausanne, Switzerland, 2000), a Master's Certificate in «Project Management» (George Washington University, Washington DC, 1997), an MBA (Columbia University, New York, 1994), a Ph.D./M.S. in «EE/Communications» (Syracuse University, NY, 1986/1982), and a B.S in «Chemistry» (Lebanese University, Lebanon, 1979).

### **Abstract:** "Internet Governance: Key to Development and Rights"

When we look at the progress and the fast advancement made around the globe in the past few decades, we must rest assured that the Internet was its basic engine. The IGF gives an opportunity to all stakeholders (Governments, private sector, academia, Civil Society, and the Technical Communities): To engage in a fruitful dialogue, and to benefit the whole society by listening to each other, discussing, understanding, taking other stakeholders' concerns into account, and advance. All stakeholders must move together without leaving «a weak link» behind but rather finding ways to make everyone a strong link, for everyone and every community's benefit.

Emerging Internet-related issues are increasingly requiring special attention and dialogue among stakeholders. Examples of these issues are: Affordable non-discriminatory uncensored access to the Internet and to information. Freedom of communication and expression. Privacy and confidentiality on the Internet for all - individuals, corporations, groups, governments, and academics



### **Johnathon Chapman**

Johnathon Chapman is Chief Information Officer for Georgetown University in Qatar. He is also active in Internet2, the US national research and education network, chairing the Internet2 Emerging NRENs Middle East Special Interest Group. Mr. Chapman's career spans more than 20 years in the field of information technology as an administrator, consultant, teacher, and technologist. Since 2000 he has lived in the Arabian Gulf where he has worked in higher education, government, and private industry. Mr. Chapman has degrees in business and computer science. He has special interests in global education networks and the management of service organisations in culturally diverse environments.



### **Juma Al Balushi**

Juma Al Balushi, OMREN Project Director with over 20 years of experience in IT sector, of which 10 years have been in Management and Business development, covering business and IT strategy. Delivery driven with ability to examine alternatives approach and communicate complex ideas and solutions throughout all levels of business. Comprehensively worked on IT Infrastructure sector in a challenging environment. Juma has vast data centre experience that includes the complete life cycle management including business planning, data centre design, management and operation.



### **Karim Abdelghani**

Mr. Karim Abdelghani comes with an experience of around 12 years in Information and Communication Technology, specifically in the area of international relations in this vibrant field. Throughout these years, he worked for the Ministry of Communications and Information Technology of Egypt, the International Finance Corporation, and the ITU. He received a Master degree in International Development from the University of Birmingham in 2009. Moreover, he is currently the Programme Coordinator in the ITU Arab Regional Office where he coordinates with stakeholders in the region on several regional issues including Smart Learning, Arab Digital Content, ICT Applications, ICT Indicators, and Accessibility.

#### **Abstract:** "ITU's Regional Initiative on Smart Learning"

The ITU World Telecommunication Development Conference that was held in Dubai in March/April 2014 adopted regional initiatives that focus on priority areas that will guide the work of the Union regionally in the coming four years. One of which for the Arab Region is a Regional Initiative on Smart Learning. This presentation will present the findings of an overview assessment of Smart Learning policies and strategies in the countries of the Arab region. In addition, a four year plan to implement this regional initiative will be presented with the aim of receiving valuable feedback from the e-Age community, increasing awareness on upcoming ITU activities and promoting cooperation in that regard.



### **Karim Zerhouni**

Professor Dr. Zerhouni, who started his career as a Computer Sciences Researcher at the «Centre National de Recherche Scientifique» (CNRS) in Paris, France, is a highly accomplished, results-driven Management Consultant and Academic with proven ability to direct successful international technology, information security, and data protection programs and departments. Possesses special expertise in global project management across industries, technology deployments, enterprise systems management, and network architectures. Have multiple advanced degrees M.Sc. and PhD in Computer Sciences, Computer Engineering and Artificial Intelligence from Pierre and Marie Curie University, Paris 6; and professional certifications, including CISSP, CCIE, and CCDP. Agent of Change capable to further revenue growth through innovative strategies and disruptive technologies, tools, and process improvement solutions. Dr. Zerhouni has 23 years of experience, worked in all 5 continents for 3 of the “Big 4” top global consultancies in various senior management roles. His main research interests are pattern recognition, data protection and infrastructure security.



### **Khaled Basulaim**

Prof. Dr. Khaled O. Basulaim is the Managing Director of the ‘Yemen Centre of Information Technology in Higher Education (YCIT-HE)’, Sana'a, Yemen, since 2008. He is an Associate Professor, and the Ex-Head of the Information Technology Department (2001-2008) at the Faculty of Engineering / the University of Aden, Yemen. He received MSc degree (1982) in Digital Control / Electrical Engineering Instrumentation and Command from the Technical University of Budapest (BME), Hungary, and MSc degree (1990) in Instrumentation & Control – Image Processing, from the University of Le Havre, France. He has completed his PhD dissertation (1995) at the LACOS research laboratory, University of Le Havre, France. His research interests include Computer Networks, Digital Image Processing, Neural Computing, Multimedia Techniques and Multimedia Communication. In the last 20 years he has been affiliated as a full-time academic staff with the University of Aden, Yemen. During his academic career, he acted as thesis supervisor of several MS students. He is the author/co-author of more than 20 articles, books and research reports in the field of Computing and Informatics. He was the member of different ministerial and inter-university committees for creating and evaluating some new programs. Acting member of some principal referees-committee for the University and Ministry Academic Research Awards and journals.



### **Marco Brandstätter**

Marco Brandstätter, 41, CEO of CloudBrokers and Senior Business Accelerator at DE-CIX. Marco plays a key role in successfully establishing and developing the 1st carrier and datacentre neutral IXP, the UAE-IX in Dubai, UAE. Prior to this Marco was the Owner and CEO of i3B, an international wholesale company focused on peering, IP Transit and MPLS services. In 2010 he sold the company group to its biggest wholesales customer. Marco started his Internet career as the co-founder of HAPPYsoft (1992), a software development company and as the co-founder of HAPPYnet (1995), one of the first Internet Service Provider in Austria. Marco lives in Kärnten, Austria with his wife and three great children.

## **Abstract:** "UAE-IX the Internet Exchange for the Middle East"

UAE-IX is a neutral Internet traffic exchange platform that interconnects global networks and, above all, network operators and content providers in the GCC region. UAE-IX is built on a fully redundant switching platform located in two high-class secure data centers in Dubai. Initiated by the UAE's Telecommunication Regulatory Authority (TRA) and fully managed by DE-CIX, who operates the world's largest Internet Exchange based in Frankfurt Germany, UAE-IX delivers a highly available local alternative for regional traffic exchange, localizing Internet content. UAE-IX will reduce latency times by up to 80 per cent and costs by up to 70 per cent for GCC providers. Moreover, UAE-IX will improve IP network resilience and robustness and will also help provide reliable connectivity within the GCC.

The Gulf economy is booming and so is the region's data traffic. HDTV, online gaming, multimedia, and cloud computing are driving data traffic here as well. Until now, Internet service providers in the GCC region have had to exchange their traffic via Europe, Asia or North America, leading to high latency rates. Initiated by the UAE's Telecommunication Regulatory Authority (TRA) and supported by DE-CIX, UAE-IX delivers a highly available local alternative for regional traffic exchange, localizing Internet content. It will dramatically improve routing efficiency and the quality of the Internet experience for end-users.



**Michael Moore**

Michael Moore holds a master's degree in Computer Information Systems and a bachelor's degree in Accounting. He has worked extensively in the software industry with over 20+ years of experience managing and manipulating data and customizing software. Mike has created a variety of data analysis tools from simple, straight-forward tables to complex, automated financial models, workflow automation systems, scientific analysis models, as well as web-based applications to front-end SQL databases.

Mike was a Desire2Learn higher education client for three years and managed the Analytics implementation at Daytona State College during that time. He also served as the project manager for a co-development project that the client was pursuing with Desire2Learn to develop institutional outcome reporting, competency assessment and learning evidence tools to support accreditation, re-affirmation and the continuous program improvement cycle. Mike is particularly interested in the effective integration of educational technology tools into the online teaching environment and the classroom. His experience is both in learning analytics to examine the presentation of information to students to help them learn as well as the academic analytics to evaluate the learning achievement metrics and help improve the process. He was also a system administrator for the Desire2Learn implementation and is fluent in all aspects of the learning environment and system administration elements.

Prior to working with Daytona State College, Mike has a rich consulting history spanning the past 15 years. He has been an independent consultant developing custom web-based software and database integrations as well as developing custom database and reporting applications.



## **Michelle Makaroff**

Michelle Makaroff is Belgian. She has 38 years professional experience with leading teams and organisations at various stages of maturity in the Information Technology, Education sectors and in particular, in the cooperation and development field.

Michelle has particular knowledge of all the major International Financial Institutes (IFIs) such as the European Commission, the World Bank, the European Investment Bank, the Africa Development Bank, the Asia Development Bank, Multilateral Agencies (UNIDO, UNDP, UNICEF, UNESCO) and EU and US/Canadian bilateral agencies (GIZ, DFID, Belgian Technical Cooperation Agency, AFD, CIDA, USAID and others).

She is a specialist in dealing with Governments, Ministries, Donors, international and local companies in the Emerging Markets, facilitating Public Private Partnerships and developing consortia and liaising with large multinationals Project Management in various locations.

Prior to joining Teachers Media International as Senior Director in charge of relations with Governments and International Organisations, Michelle worked for Microsoft. She was responsible for managing Microsoft's Strategic engagements with the European Union and the European Union bilateral agencies across sub Saharan Africa, the Middle East and Eastern and Central Europe. She is an expert in facilitating successful Public Private Partnerships together between 'for profit' and 'not for profit' organisations to support UN Millennium Development Objectives (MDGs) in education. Prior to that, Michelle worked for the European Commission.

Throughout her career, Michelle has combined with passion a distinguished career of business, philanthropic and humanitarian leadership.

### **Abstract:** "What about Innovative e-Schools Public-Private Partnerships?"

Background to the presentation: The MDG's 2015 education objectives focus on ensuring that, by 2015, boys and girls everywhere in the world, will be able to complete a full primary schooling cycle.

In 2012, 58 million children of primary school age were still out of school. Gender gaps in youth literacy rates are also narrowing. Globally 781 million adults and 126 million youth (aged 15 to 24) worldwide lack basic reading and writing skills, and more than 60 per cent of them are women.

The presentation: Today all stakeholders-from governments to international organisations, Teachers and Parents Associations, NGO's, private sector, private banks, recognize that the focus should be on giving the priority to teachers to improve their teaching skills. The presentation will focus on the missing gaps and innovative ways to achieve the post-MDG objectives. It will support and bring connectivity in rural areas and provide online professional development services to train teachers to become motivated ambassadors. It should include accreditation and training for the whole education community, from teachers to teaching assistants, principals, education officers and children i. This combined with the commitment of governments and funding will shape the future of our children in a sustainable and scalable way and give them the right skills and competencies to progress. In a word, aiming to develop together efficient education models for their future.



### **Mimoun Hajj**

Dr. Mimoun Hajj is the Director of Research Laboratory Technology Hydrocarbon responsible for the training of master in refining the University of Boumerdes. Also he is the Advisor to the Algerian Petroleum Institute of Boumerdes as well as a teacher of master cycle where he ensures the transfer module material and heat.

The field of research is oriented towards the exploitation of heavy oil fractions and the treatment of oil sloughs to Sahara by biological methods. Dr. Mimoun Hajj is responsible for several university research projects in refining. He is a supervisor for master. He has several international publications. He holds a degree on the status of the Institute of Petroleum and the chemistry Boumerdes of 1974 and PhD from the Institute of Gubkin Moscow 1984.

**Abstract:** "Aromatic Hydrodeacyclization of Using Catalysts Based on Molybdenum and Tungsten Supported on the Remblend of Kaolin"

The study consist the study of the valorization of petroleum fractions rich on poliaromatics diesel fuel using clay catalysts. In this way, Remblend Kaolin was used to prepare two kinds of catalysts.

The first is monometallic, consisting of molybdenum and the second is bimetallic, consisting of molybdenum and tungsten. The product used is the average aromatics. The study is based on the change in the content of aromatics in terms of temperature, under constant hydrogen pressure.



### **Mohammad Mabrouk**

Mohammad is Manager of IT Infrastructure Development and has been with Ankabut since March 2009, his role is to work with the senior management to define the strategy, objectives, resources and budget, timelines and project plan for the implementation of ICT infrastructure related projects, also he is Responsible for the integrity and security of the Ankabut network and its infrastructure. Before joining the Anakbut, he served in the Jordanian NREN (JUNet)-Amman as Network Manager for four years and as Senior Network Engineer in the Hashemite University-Zarqaa for three years. Mohammad has extensive experience and training in Internet protocols, service provider technologies, ICT security, ICT Infrastructure and ICT service management.

He holds a BSc in Computer Engineering and Digital Systems Technology from Al-Balqaa University in Jordan and perusing a Master degree in Network, Security and System Administration from Rochester Institute of Technology.



### **Mohammed Husamaddin**

Having spent a lifetime with the education community in the Gulf (and to less extent in North Africa), Mohammed Husamaddin is honored of having contributed to knowledge and learning projects that are improving the life style of people around us.

Key strengths within the education industry in the Arabic speaking countries: Business Strategy

and Operations; Business Development; Solutions Sales and Account Management; Solutions Development and Planning.

Currently; Husamaddin is the Director of Knowledge Asset Management Division at Naseej. Reporting to the President of the company; this role manages business development, technology solutions and professional services library and knowledge solutions for Arabian Advanced Systems. The role requires anticipating technology trends in education & knowledge area and forecast market needs in the region in order to address the local community needs.

Husamaddin participated in many scientific seminars and events both national and international and conducted many workshops in the domain of marketing, strategy management and library services.

Husamaddin has also played key roles in large number of projects ranges from technology expert, project managements, solution design, consultant and member of steering committee for projects like:

- Umm Al-Qura University eLearning Project.
- Al-Majma'a University eLearning Project.
- Ankabut eLearning Platform Project
- Dubai Public Libraries Network.
- Abu Dhabi School Libraries Upgrade Project (consultation project).
- Yemen Higher Education Library Development Project (consultation project).
- Ministry of Higher Education Libraries Network (Oman).
- Tunisian National Library Automation.
- IMIST Library project in Morocco.

Mohammed holds a number of professional certificates in his domain including:

- Knowledge Manager by the International Institute of Knowledge Management of USA.
- Strategies in Sales Management Course from Michigan ROSS School of Business. USA – Dubai Campus.
- Marketing Strategies and Strategies in Management from Cambridge University – UK.
- Currently pursuing the Advanced Certificate for Executives in Management, Innovation, and Technology from MIT Sloan School of Business, Cambridge, USA.

Husamaddin is a graduate of King Fahad University of Petroleum and Minerals (KFUPM), college of Science.

### **Abstract:** "Disruptive Technologies Change the Face of Higher Education"

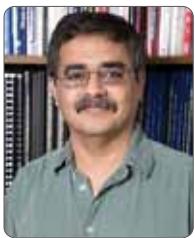
Higher Education institutions are at a cross section on their strive to achieve goals. The balance between organizational effectiveness vs organizational efficiency is more and more driving up institutions and driving many out. Rapid technological innovations, while presented many challenges, can also be the vehicle for unique differentiation. A strategy framework to face these challenges will be suggested".



### **Nabil Shawaqfeh**

Prof. Dr. Nabil Shawaqfeh is the President of Al-Balqa' Applied University, Amman, Jordan. He holds a bachelor's degree in Mathematics from the University of Jordan (1977), a master's degree in Mathematics from the University of Jordan (1979). He has completed his PhD dissertation in Mathematics from Clarkson University, USA (1983). In the last 20 years he held the following positions: Chairman of Science Department, Philadelphia University, Jordan. Director of International Scientific Relations Office, University of Jordan. Chairman of Mathematics Department, University of Jordan. Dean of Academic Research, University of Jordan. Vice-President for Academic Affairs, University of Jordan.

In 2008 he held the position of President of Al Al-Bayt University .Now he is President of Al-balqa' Applied University Since 2012. During his careers, he was involved as a chair or member of several, administrative, accreditation, academic, as well as, scientific research committee councils on the university and the national levels. Now, He is the president of board of directors of JUNet (Jordanian Universities Network).During his academic career, he supervised 7 PhD and 21 M.Sc thesis and published more than 40 publications.



### **Nasir Memon**

Nasir Memon is a professor in the Department of Computer Science and Engineering at NYU and the founding director of the Centre for Interdisciplinary Studies in Security and Privacy (CRISSP), a collaborative initiative of multiple schools within NYU and NYU Abu Dhabi including NYU-Steinhardt, NYU-Wagner, NYU-Stern and NYU-Courant. His research interests include digital forensics, data compression, biometrics, and information security.

Memon earned a Bachelor of Engineering in Chemical Engineering and a Master of Science in Mathematics from Birla Institute of Technology and Science (BITS) in Pilani, India. He received a Master of Science in Computer Science and a PhD in Computer Science from the University of Nebraska.

He has published more than 250 articles in journals and conference proceedings and holds a dozen patents in image compression and security. He has won several awards including best paper award and the Jacobs Excellence in Education award. His research has been featured in NBC nightly news, NY Times, MIT Review, Wired.Com, New Science Magazine etc.

He was the Editor-in-Chief of the IEEE Transactions on Information Security and Forensics and the editorial board of several other journals. He is the founder of CSAW - the largest student centric cyber security event. He is an IEEE Fellow and a Distinguished Lecturer of the IEEE Signal Processing Society.

**Abstract:** "The Internet of Humans and Things: Emerging Challenges in Security and Privacy"

Computing is becoming centered on the vast amounts of information captured and made accessible as all humans and devices get connected into to an "Internet of Humans and Things" (IoHT). By 2020 it is expected that 20 billion devices will be connected to the Internet and this

is further projected to reach a trillion, soon after. IoHT will span the energy grid, water supply, law and order, first responder networks, health care systems and transportation systems. It will encompass medical implants, alarm clocks, wearable systems, automobiles, washing machines and traffic lights. This talk will discuss challenges that will have to be overcome from a security and privacy point of view as we move towards the vision of IoHT and the tremendous benefits it can bring.



### Ognjen Prnjat

Dr. Ognjen Prnjat holds the position of European and Regional e-Infrastructure manager in the Greek Research and Technology Network. In this role he is responsible for organizing various aspects of computing infrastructures in South-East European region and beyond, their interoperation with pan-European e-Science infrastructure; as well as GRNET involvement in pan-European and worldwide e-Infrastructures. In the past 10 years he has acted as project coordinator for 5 European Commission projects in the field. Previously Ognjen was with the Department of Electronic and Electrical Engineering, University College London, where as a Research Fellow he was leading technical and project management aspects of a number of projects in diverse fields of computing and telecoms. He holds a First Class Honors Bachelor of Eng. Degree in Electronics and Electrical Eng. from University of Surrey, UK; and MSc (Distinction) and Ph.D. in Telecom from University College London.

#### **Abstract 1:** "Surveying Clouds in the Global Environment"

This paper reports on the results of the survey regarding the Research and Education (R&E) clouds in a number of world regions covered by the CHAIN-REDS project, including the Arab region. The survey includes the technical aspects of R&E clouds, as well as issues related to interoperation, interoperability, compatibility, orchestration and federation. Results obtained show a high interest in standards, thus pointing to the fact that the cloud federation solutions offered by CHAIN-REDS, which include a global cloud federation test-bed and the use of OCCI and CDMI standards, provide a building block for global cloud federated environment.

#### **Abstract 2:** "Shared Computing Infrastructures: a Regional Operational Approach"

Modern research relies on the ability to share storage and computational resources, as well as algorithms and data, between research groups on national, regional and global levels. This paper presents a case study for regional organization of computational resource sharing and joint operations, enabling international research over a spectrum of scientific fields. The case study is based on 10 years of multiple high-end technology projects in South-East European region, including both Grid Computing and High-Performance Computing. The case study is considered as a useful model for organising computing resource sharing in other world regions, including the Arab region, as currently promoted by the project CHAIN-REDS.



### **Patrick Fassnacht**

Patrick Fassnacht started in Experimental Nuclear and Particle Physics at the University of Strasbourg (France) in 1979. From Nuclear Physics he moved to Intermediate Energy Physics participating to various experiments at the CERN SC (Geneva/Switzerland) and at SATURNE (Saclay/France). In 1984 he got his PhD diploma of "Docteur Es-Sciences". When joining the CPPM at Marseille he moved to High Energy Physics joining the CPLEAR collaboration (focus on CP violation) and finally the ATLAS experiment. To the latter he contributed as Test Beam coordinator and later for six years as Technical Coordinator of the ATLAS Liquid Argon Calorimeter system. He was responsible for getting the calorimeters assembled, integrated into the cryostats and commissioned. From April 2004 onwards, for a period of more than six years, he was acting as CERN ATLAS Team leader. During that period he had interactions with the numerous ATLAS Users coming to CERN; at that time he started to establish strong collaboration with some countries from the Middle East and North Africa. For the five last years he was also the CERN Scientific Coordinator of the European AIDA program. Since 2011 he is advising CERN's DG in all matters concerning CERN-MENA relations as member of the International Relation team.



### **Rafael Mayo-García**

Dr. Rafael Mayo García is Senior Researcher at CIEMAT and earned his PhD in Physics from the Universidad Complutense de Madrid (2004). From 2006 he has also been Adjunct Faculty and Honorary Fellow at the same University in the Physics of Materials Department. He has been involved in many experiments in Bulgaria, Sweden and Ireland (funded, among others, by the European Commission with a Marie Curie fellowship). He has also obtained a postdoctoral fellowship in the Spanish Juan de la Cierva Programme. He is author of 29 scientific articles published in international JCR referenced journals (being cited 180 times) and more than 70 proceedings (being cited 308 times in Google Scholar). He is project coordinator of 2 Spanish R&D IT initiatives and has been involved in several European and National projects working on ICT scientific developments (EGEE-III, EUFORIA, EFDA-ITM, Spanish e-Science Network) and even on managerial activities as Work Package Manager and/or member of Executive Boards (EELA, EELA-2, EPIKH, GISELA, CHAIN, CHAIN-REDS, BETTY). He also has served to several institutions as evaluator for their competitive calls, European Commission included.

#### **Abstract:** "CHAIN-REDS Application Use Cases on Data Management"

CHAIN-REDS started on December 2012 and focuses on promoting and supporting technological and scientific collaboration across different e-Infrastructures established and operated in various continents. After two years of work, specific results on data handling (use, management, exploitation, interoperability) are presented with a special focus on Arab use cases.



## **Redouane Merrouch**

Redouane Merrouch is the head of the Moroccan National and Academic Network (MARWAN). He has also the responsibility of the National Grid Computing Infrastructure in Morocco (MaGrid). He has a Ph.D. in Physics from the Caen University. His main interest and activity is in computer networking for R&D community.



## **Roberto Barbera**

Prof. Roberto Barbera was born in Catania (Italy) in October 1963. He graduated in Physics «cum laude» at the University of Catania in 1986 and since 1990 he holds a Ph.D. in Physics from the same University. Since 2005 he is Associate Professor of Experimental Physics at the Department of Physics and Astronomy of the Catania University and at the beginning of 2014 he got the National Scientific Qualification to act as Full Professor of Experimental Physics of Fundamental Interactions. Since his graduation, his research activity has been carried out in the domains of Experimental Nuclear and Particle Physics. He has been involved in many experiments in France, Russia, Sweden and United States to study nuclear matter properties in heavy ion collisions at intermediate energies. He is author of several book chapters, more than 250 scientific papers published on international journals, and more than 400 proceedings of international conferences (see Google Scholar profile at: <http://scholar.google.com/citations?hl=en&user=W5heEUAAAAJ>). He is editor of the International Journal of Distributed Systems and Technologies and referee of Journal of Grid Computing, Future Generation Computer Systems, and BMC Medical Informatics. He is also a reviewer of the European Science Foundation, as well as of Ministries of Science and Technology of various countries in the world.

Since 1997 he has been involved in CERN experiments and he is one of the physicists involved in the ALICE Experiment at LHC. Since late 1999 he is interested in Distributed Computing. He's been member of the Technical Committee of TERENA (the Trans-European Research and Education Networking Association, [www.terena.org](http://www.terena.org)) and of the Executive Committee of the Italian Grid Infrastructure (the Italian National Grid Initiative, [www.italiangrid.it](http://www.italiangrid.it)) and he's currently member of the Scientific & Technical Committee of Consortium GARR (the Italian National Research and Education Network, [www.garr.it](http://www.garr.it)). At European level, he has been involved with managerial duties in many FP6 and FP7 EU funded projects (agINFRA, CHAIN, DCH-RP, DECIDE, EarthServer, EELA, EELA-2, EGEE, EGEE-II, EGEE-III, e14Africa, EPIKH, EUChinaGRID, EUMEDGRID, EUMEDGRID-Support, GISELA, ICEAGE, INDICATE, etc.) in Europe, Asia, Africa and Latin America, and he's currently the Technical Coordinator of the CHAIN-REDS project ([www.chain-project.eu](http://www.chain-project.eu)). Since 2004, he coordinates the international GILDA t-Infrastructure he created for training and dissemination (<http://gilda.ct.infn.it>) and that has been used in more than 500 training events in more than 60 countries worldwide. Since 2010, he oversees the design and the development of the Catania Science Gateway Framework ([www.catania-science-gateways.it](http://www.catania-science-gateways.it)). He is also the manager of the GridP Identity Federation (<http://gridp.garr.it>) and he is strongly involved in the establishment of Certificate Authorities, Identity Federations and Open Access Digital Repositories in various regions of the world, including Africa and the Middle East.

## **Abstract:** "The INFN Open Access Repository"

In this contribution we present the Open Access Repository (OAR), a pilot data preservation repository of INFN and other Italian Research Organisations' products (publications, software, data, etc.) meant to serve both researchers and citizen scientists and to be interoperable with other related initiatives both in Italy and abroad. OAR is powered by the INVENIO software and is both an Open Access Initiative conforming and an official OpenDOAR data provider, able to automatically harvest resources from different sources, including the Sponsoring Consortium for Open Access Publishing in Particle Physics (SCOAP3), using RESTful API's. It is also one of the official OpenAIRE archives, compliant with version 3.0 of its guidelines.

OAR allows SAML-based federated authentication and it is one of the Service Providers of the eduGAIN inter-federation; it is also connected to DataCite for the issuance and registration of Digital Object Identifiers (DOIs). But what makes OAR really different from other repositories is its capability to connect to Science Gateways and exploit Distributed Computing and Storage Infrastructures worldwide, including EGI and EUDAT ones, to easily reproduce and extend scientific analyses. In this respect, the Open Access Repository is fully compliant with the Data Accessibility, Reproducibility and Trustworthiness (DART) model conceived by the CHAIN-REDS project and a concrete example related to the data of the CERN ALEPH Experiment will be shown.

The possibility and advantages of creating clones of the Open Access Repository in the Arab Region will also be discussed.



### **Said Al-Mandhari**

Said Al-Mandhari has started his role as a CEO for the Oman Broadband Company at the beginning of this year (2014), after having more than 15 years of experience in the ICT sector. Prior to working for OBC, he was the General Manager of MDS-Oman for 6 years, managing more than 150 professionals in the IT & Telecommunication sector. He has worked before that for the Government of Oman and was involved in multiple national projects related to the e-government initiatives. In addition to his current full time job, Said is working as an advisor for The Research Council (TRC).



### **Salem Al-Agtash**

Salem Al-Agtash, got his Ph.D. in Electrical Engineering from the University of Colorado at Boulder in 1998. He is a professor of Computer Engineering at the German Jordanian University and leading the development of the Arab States Research and Education Network in his capacity as the Chairman's Senior Advisor on ICT and Technology. His experience is in the area of academic research, teaching, consulting, and development. His research focuses on Electric power industry, Scheduling Mechanisms, Agent Systems, Artificial Intelligence, Software Design, Smart grids, ICT Infrastructure, Industrial linkages, Education, and Innovative partnership. He served as a department head and managing director of the Entrepreneurship Center of Excellence at Yarmouk University, with emphasis on developing graduate programs and strong linkage with industry. He has also served as a dean of School of Informatics and Computing at German Jordanian University,

with emphasis on developing relevance in education and partnership with German Universities and industries.

Currently, professor Al-Agtash is leading e-Infrastructure development across the Arab region, with PoPs in London, Fujairah, and Alexandria linking Arab national research and education networks as part of EC funding projects. His industrial experience has been in the area of technology development and consulting. As a technical advisor and consultant for more than 10 years, professor Al-Agtash has worked on several technology and education related projects funded by the European Commission, United Nations, and many national and international institutions. His intensive technical expertise covers varieties of topics in Energy, Education, Science, e-Infrastructure, ICT, and Institutional development. His personal interest lies in e-infrastructure development as well as partnerships and innovations in developing ICT applications in energy, institutional services, resource planning, and industry-oriented implementations.



### **Salman Matalgah**

IT expert in systems and networking, he is acting as Computing Group leader at SESAME, his team is composed of 3 people with strong systems engineering skills and a daily operational experience of heterogenous IT systems. He is in charge of designing and implementing SESAME's computing infrastructure and services. He is also a specialist in HPC infrastructure clusters, building and management. Also he is managing User Resources at IMAN1 (Jordan's National Supercomputer Centre) Supercomputing Centre.

#### **Abstract:** "SESAME as an International Research Lab"

SESAME (Synchrotron-light for Experimental Science and Applications in the Middle East) is a third-generation synchrotron light source under construction in Allan (Jordan). It will be the Middle East's first major international research center. The main aim is to foster scientific and technological excellence in the Middle East and neighboring countries (and prevent or reverse the brain drain) by enabling world-class scientific research in subjects ranging from biology, archaeology and medical sciences through basic properties of materials science, physics, chemistry, and life sciences; and Build scientific and cultural bridges between diverse societies, and contribute to a culture of peace through international cooperation in science.

In each experimental lab at SESAME (Namely Beamline) collaboration between scientists including graduate students, from universities and research institutes from world-wide among centers/countries will return home to analyze the data they have obtained from SESAME experiments, the amount of data vary depends on each experiment type and image detectors, in many cases the produced raw data could reach few Tera Bytes, this led users' to be more demanding for both the computing processing power and networking to operate in-site/off-site the pre and post processing on SESAME's Beamline's data.

One of the main responsibilities on The Computing Group at SESAME is to maintain all users' demands from basic infrastructure services, data transfer to the advance High Performance Computing (HPC) infrastructure. For that purpose SESAME is engaged with IMAN1( The Jordan's National Supercomputing Center) The main project objective is to enable scientific computational

research in the region by engaging and supporting research communities with providing extensive HPC user support, training, develop and implement a well-structured HPC resource allocation mechanism and operations.



### **Sami Salih**

Dr. Sami Salih, founder and yet chair the Sudanese IPv6 Task Force (SDv6TF), he was the chair of the 2nd corresponding specialized group of IPv6 in the International Telecommunication Union (ITU). During his position at the telecom regulatory authority (NTC Sudan) as head of R&D, he participated and contributed to the development of ICTs in his region, indeed he is appointed by ITU to develop a national migration plans toward deploying IPv6. Furthermore, he established a specialized training centre for IPv6 in Sudan in collaboration with USM NAV6 Malaysia. Currently as SudREN (Sudanese Research and Education Network) CEO, he conducts a project to provide e-services with IPv6 enable for all members institutes. Mr. Salih holds PhD in Telecommunication Networks from Sudan University of Science Technology (SUST).

#### **Abstract:** "Deployment of IPv6: Case of SudREN"

IPv6 is very important for the long-term sustainability of the internet. The current IP addressing protocol (IPv4) contains only around 3.7 billion Public IP Addresses, which cannot hold ground against today's ever-growing demand for internet access specially with the introduction of smartphones, tablets, PC, gaming systems, and just about everything else connecting to the internet. Major Internet service providers (ISPs), vendors, and networking equipment manufacturers, and web companies around the world are permanently enabling IPv6 for their products and services. Locally in Sudan, IPv6 has a big support from operators and regulators. In 2010 the National Telecommunication Committee put forth an IPv6 migration plan and formed the Sudanese IPv6 Task Force (SDv6TF) followed by a set of workshops and seminars to spread the awareness of IPv6 within the community.

On June 10th 2014 SudREN completed its IPv6 preparation and started announcing its prefixes to the world following its peers and other service providers taking the next step in IP Addressing. Currently most of SudREN services are running both IPv4 and IPv6.



### **Sergey Suchkov**

Sergey Suchkov was born in the City of Astrakhan, Russia, in a family of dynasty medical doctors. In 1980, Suchkov graduated from Astrakhan State Medical University and was awarded with MD. In 1985, Suchkov maintained his PhD as a PhD student of the I.M. Sechenov Moscow Medical Academy and Institute of Medical Enzymology, USSR Academy of Medical Sciences. In 2001, Suchkov maintained his Doctor Degree at the National Institute of Immunology, Russia.

From 1985 through 1987, Dr. Suchkov worked as a Post Doc Research Associate, Institute of Medical Enzymology; from 1987 through 1989, was a Senior Research Associate, Koltzov Institute of Developmental Biology, USSR Academy of Sciences. From 1989 through 1995, Dr. Suchkov was

a head of the Lab of Immunology and Immunobiotechnology, Helmholtz Eye Research Institute in Moscow to resume studies in the area of eye immunology done earlier as a medical student. In 1989, Dr. Suchkov trained at the Lab of Immunology, NEI, Bethesda, MD, USA, NIH and Lab of Immunology, Wills Eye Hospital, Philadelphia, USA, as well as at some of the British Universities on the invitation of the Royal Society for Immunology. From 1995 through 2004, Dr. Suchkov was a Chairman of the Dept for Clinical Immunology, Moscow Clinical Research Institute (MONIKI) and the Immunologist-in-Chief of the Moscow Regional Ministry of Health.

In 1993-1996, Dr. Suchkov was an Executive Secretary-in-Chief of the Editorial Board, Biomedical Science, an international journal published jointly by the USSR Academy of Sciences and the Royal Society of Chemistry, UK.

At present, Dr. Sergey Suchkov, M, PhD, is Professor in Immunology, I.M. Sechenov First Moscow Medical University, Dean of the School for PPPM Management and First Vice-President of the University of World Politics & Law, and Chair and Director, Department of Preventive, Personalized and Translational Medicine, A.I.Evdokimov Moscow State Medical & Dental University to cover a lot of responsibilities including PPPM.

Dr. Suchkov is an author of more than 500 publications and 10 patents. He is a member of:

- New York Academy of Sciences, New York, USA;
- EPMA (European Association for Predictive, Preventive and Personalized Medicine), Brussels, EU;
- ARVO (American Association for Research in Vision and Ophthalmology);
- ISER (International Society for Eye Research);
- All-Union (from 1992 - Russian) Biochemical Society;
- All-Union (from 1992 - Russian) Immunological Society.

Dr. Suchkov is a Secretary General of the UCC (United Cultural Convention), Cambridge, UK.

**Abstract:** "PPPM as a New Model of and thus a Unique Tool in a Global Reshuffling of National and International Healthcare Services"

The medicine is undergoing a paradigm shift to strive from the diagnosis and treatment for prediction and prevention. A new systems approach to disease to pay its crucial attention on the trend would result in a new branch in the healthcare services, namely, predictive, preventive and personalized medicine (PPPM). To achieve the practical implementation of PPPM concept, it is necessary to create a fundamentally new strategy based upon the subclinical recognition of biomarkers of hidden abnormalities long before the disease clinically manifests itself. This strategy would give a real opportunity to secure preventive measures whose personalization could have a significant influence on demographics!

Two key objectives of PPPM are: Detection of subclinical abnormalities with a selection of suitable targets for the next step of PPPM protocol, i.e., drug-based prevention, and drug-based correction of the abnormalities detected under the heading of preventive measures. PPPM is thus a medical model being tailored to the individual and dictates a construction of PPPM algorithms to diagnose, to predict, and to prevent in time!



### **Sharifa Hajjat**

In 2011, Sharifa founded the Arab eLearning Academy with the goal of enriching the quality of educational online content available in Arabic, and also, to provide a community of practice for Arab Educators. The Arab eLearning Academy aims to do this by spreading awareness of new teaching and learning methodologies and to aid in transforming education in the Middle East through the effective use of Education Technology.

This successful regional initiative has attracted more than 45,000 members from 19 Arab countries. The Arab eLearning Academy is by far the biggest resource in the Arab countries for Education Technology and eLearning, engaging members in weekly public professional development series and making resources available to Arab educators in their own native language.

During the past 9 years, Sharifa has managed and implemented over 150 eLearning projects. These include content development for learning management systems, using social networks in T&L, mobile learning, virtual classrooms, T&L in immersive environments (e.g. Second Life), and various web 2.0 tools amongst many other projects.

As a Blackboard Certified Trainer, she has trained more than 200 faculty members at the Higher Colleges of Technology in the United Arab Emirates. Sharifa has designed an award winning Blackboard Vista Certification Program in addition to many other successful faculty certification programs including Internet Safety, Professional Online Instructor Certificate (POIC) & Certified POIC Assessor.

Sharifa has presented in different regional and international conferences and was awarded the eLearning Innovation Award by HCT- UAE in 2009 and the Women's Entrepreneur Award by Queen Noor of Jordan. Sharifa is also the Ambassador of Poncilio, a global community for women entrepreneurs in UAE.



### **Sureswaran Ramadass**

Professor Sureswaran Ramadass is the current Chairman of APAN (Asia Pacific Advanced Networks). He is also a Visiting Professor at the International University of Malaya Wales (IUMW) and Chairman of the Board and Executive Director of NLTVC Sdn Bhd. (NLTVC is a next generation communications research and development company).

Prior to this he was a Professor at University Sains Malaysia. He built the centre to become the top performing Department in the University for 2011 and 2012, earning millions in revenue for the University.

He was also awarded:-

- The National Academic Laureate for Innovation and Commercialization in 2008 by the Minister of Higher Education.
- The Malaysian Innovation Award by the Minister of Science and Technology, in 2009.
- The Wireless World Research Forum Fellow in April 2010 for his contribution in the area of Next Generation Networks and IPv6.

Prof. Sureswaran is involved in the Global IPv6 Forum and is Emeritus Chair of the IPv6 Forum Education Certification Program. He is also the Malaysian IPv6 Forum Chairman. Prof. Sureswaran was one of the founding members of MYREN (Malaysian Research and Education Network) and the first Chairman of the Research Steering Committee. He is also currently the IPv6 Domain Head.

He was the Chairman of the Asia Pacific IPv6 Task Force (APV6TF) and was involved in promoting IPv6 within the region and globally.

Prof. Sureswaran is currently a Primary Member of APAN (Asia Pacific Advanced Networks) as well as the Head of APAN Malaysia. He was also a Director and Treasurer in APAN Board.

His recent active participation in the global IPv6 arena includes being a consultant to ITU. His expertise was valuable in formulating a proposal on the expansionary approach to Global IPv6 Address Allocation.

He obtained his BscEE/CE and MscEE/CE from University of Miami and his PhD from University Sains Malaysia (USM).



### **Thomas Delaney**

Thomas Delaney is Vice President of Global Technology and Chief Global Technology Officer at New York University. Tom is responsible for global technology strategy across NYU's functional areas and coordinates the university's IT operations across the international sites.

Tom brings a background in both academic and corporate IT to the role. He previously served as Associate Dean of Technology and Chief Information Officer at the New York University School of Law. Under his leadership, NYU Law was named the top technology law school in the United States by preLaw Magazine. Prior to working in academia, he founded an international software company in the document assembly space, consulted globally on engineering document management, and served as Chief Information Officer for a consortium of companies in the retail and distribution sectors.

Tom serves on a number of international corporate advisory councils and is a frequent speaker on innovation, technology and global higher education. He holds several U.S. patents for telecommunications products, and was named a Premier IT 100 leader by Computerworld. Tom has an MS and a BS in electrical engineering from Rensselaer Polytechnic Institute and is a New York State Licensed Professional Engineer.

**Abstract:** "Community-Based Research through Open R&E Exchanges: A New York University Perspective"

New York University began a transformation process seven years ago to become a globally-based research university. Half a decade later, NYU operates on 6 continents, with three degree-granting portals and 13 additional study away locations across the globe.

NYU's researchers indicated that it wished to collaborate not just with NYU partners across the globe, but also with other research universities. Thus evolved a global community of practice, developed largely through the cooperation of globally-minded universities and the national research networks throughout the world.

Tom will describe the formation and operation of Research & Education (R&E) co-location facilities that are strategically placed around the world to facilitate research collaboration, and the impact of that this evolving infrastructure has had on our global R&E community of practice whose collaboration is no longer constrained by campus or national borders. Tom will spotlight the achievements of the global R&E community in far-ranging areas such as medicine, energy, climate, and security.



### **Tony Cass**

Tony Cass joined CERN's Information Technology Department in 1987 after completing a PhD in Particle Physics at the University of Liverpool. After initial assignments in the CERN Program Library and working with CERN's IBM/VMCMS service, Tony played a leading role in the migration from mainframe to workstation and then PC based computing, led the refurbishment of a 30-year old computer centre to meet the needs of LHC computing and has had major responsibilities in the operation and management of large scale batch processing, data storage systems and for corporate, research and accelerator databases. Tony currently leads CERN's Communication Systems Group with a remit covering an extensive wired and wireless campus network, a dedicated network supporting control systems for the LHC accelerator, high-performance networking for the LHC experiments and the data centre, dedicated 10Gbps and 100Gbps international links, fixed and mobile telephony services, and safety-critical radio communications.

**Abstract:** "The Worldwide LHC Computing Grid and its Network Connections"

The Worldwide LHC Computing Grid (WLCG) links over 150 computer centres into a powerful computing facility able to meet the unprecedented demands of the LHC experiments in their search for ground-breaking physics results. This brief presentation will give an overview of WLCG as a whole, highlighting the network infrastructure that links CERN to the Tier1 centres which share custodial responsibility for the LHC data and to the Tier2 centres at universities around the globe.



### **Walid Karam**

Dr. Karam is an accomplished ICT consultant with a progressive career record spanning the full range of ICT and educational consultancy. Past performance includes assessing, evaluating and designing cost-effective systems and overhauling educational business processes to improve learning and teaching through the effective, embedded, innovative, and sustainable use of ICT, with an emphasis on Free & Open Source Software technologies.

Dr. Karam is currently a consultant to the Lebanese Minister of Telecommunications. He is leading a management team to coordinate the activities of the "Mobile Internet Ecosystem Project", a

12.8 million dollar business that comes as a loan from the World Bank. The project's development objective is to strengthen innovation and entrepreneurship in the Lebanese mobile Internet ecosystem. The project fosters economic growth, job creation, and competitiveness in the economy, through the creation of a culture of entrepreneurship, the development of a pipeline of startup projects, and the enhancement of skills to meet the global standards of the ICT industry.

On the Academic side, Dr. Karam has taught university computing courses at the University of Balamand since 1993, and has published a number of articles in international journals and conferences.



### **Yousef Torman**

Yousef Torman is currently working as Managing Director for the Arab States Research and Education Network (ASREN). His aim is to establish a pan Arab e-Infrastructure to support the development of research and education in the Arab region. His responsibilities in ASREN include Technology, Networking and Infrastructure. Youssef's main focus is to promote and encourage the use of technology and networks for research and education.

Yousef worked also as Executive Director of the Jordanian Universities Network (JUNet), the Jordanian National Research and Education Network. He participated and chaired many national and regional committees and initiatives that focus on research and education infrastructures. He also co-established and managed the new Computer and Information Center at Jordan University of Science and Technology (JUST); one of the largest Universities in the region with focus on science and technology. Yousef has played a prominent and key role in the efforts and initiatives that aim to establish a Pan Arab regional e-Infrastructure for scientific research for the last 10 years.



### **Yves Poppe**

Yves Poppe is very active in the Research and Education Networking Community where he was a pioneer in international high bandwidth with the first transatlantic STM-1 connection in 1994 between Canarie and Europe. This became the first transcontinental high bandwidth for the R&E community, part of the G7 GIBN (Global Interoperability of Broadband Networks) Initiative. The first lambda level connection followed six years later with a 2.5gbps between Surfnet Amsterdam and New York Manlan and from there to Chicago Starlight. He also contributed to the first international connections between the USA and Russia for what was later to become the Gloriad project as well as numerous other projects in Europe and Asia. He represented Tata Communications in R&E organisations including TERENA where he was member of the General Assembly, Internet2 and APAN and was also a member of the Canarie Technical Advisory Committee.

In another area of activity, Yves Poppe was for more than a decade an ardent proponent of the next generation internet protocol, IPv6. He became a founding member of the International IPv6 Forum where he was a steering committee member of the North American IPv6 taskforce. He chaired the Canadian IPv6 Task Group that, in March 2010 issued a set of recommendations

for IPv6 deployment and transition in Canada and chaired the Canadian IPv6 Forum. Yves was also a member of the Cisco IPv6 deployment Council and the Tata Communications in-house IPv6 Council.

Yves is a frequent presenter on the evolution of telecommunications, the internet and the key role of IPv6 and regularly covered the evolution of subsea communication capacity and international telecommunications, at sessions of TEMIC (Telecommunications Executive Management Institute of Canada) and other fora.

Retired from Teleglobe that became Tata Communications, Yves now concentrates on the transcontinental transmission needs of the High Performance Computing Community and represents A\*STAR Singapore's Computational Resource Centre, promoting the adoption of Long Distance Infiniband as long distance protocol of choice in the R&E and HPC communities with as goal the creation of a switched infiniband network or Infinet.

## Poster Contribution



**Naima Benkenana**

Dr. Benkenana Naima research laboratory member of Laboratory of Biosystematics and Ecology of Arthropods, Department of Animal Biology, Faculty of nature and life, Constantine 1 University Algeria/E-mail: naima\_benkenana@yahoo.fr /Tel : 00213790144207. Present position is teacher-researcher in Constantine University.

Dr. Benkenana Naima acquired her Magister in Agricultural and Medical Application in Entomology from Constantine .University in 2006, and Doctorat from Constantine University and Limoges, France University in 2013. She participated in several training in France and Italy. Dr. Benkenana published (5) articles in renowned, international, scientific and refereed journals. She participated in more than (50) international and regional conferences. She was a investigator for 4 national projects and 01 international (TASSILI PROJECT). Dr; Benkenana followed the framing more than 30 theses of study for Master II. In Mars, 2013, Dr. Benkenana was appointed Lecturer in department of Animal Biology, Faculty of nature and life, Constantine 1 University Algeria till present.

**Abstract:** "The Pamphagidae (Orthoptera, Grasshopper) from East Algeria and Description of a New Species

Through a 3-year survey of 9 stations in North East of Algeria, we recorded 16 species of grasshopper belonging to the family Pamphagidae. The National Park of Belezma, near Batna city, appears to be the richest region for this family, with 10 species. Notably, Paracinipe sulphuripes, only known from Djelfa, is present at Belezma, showing unexpected relationship between these two areas, separated by 280 km. Within the Pamphagus djelfensis complex, a new species is described, P. batnensis Benkenana & Petit, easily distinguishable by its epiphalllic characters. Taking into account several studies dealing with other Algerian stations, we provide certain climatic constraints of most species, as illustrated by bioclimograms. We show that the semi-arid stage with fresh winter and sub-humid stage with cold winter correspond to the most suitable conditions for this family.

## Partners

### EUMEDCONNECT3

provides e-Infrastructure giving high-capacity connectivity for research and education purposes in the southern and eastern Mediterranean region. It enables researchers and academics in these countries to collaborate with their counterparts in the Arab and European research and education communities. Over 40 million users on over 8000 research and education establishments across Europe can be reached via GÉANT.



The EUMEDCONNECT Programme has provided research and education networking within the Mediterranean area since 2004 and countries eligible for EC funding support are shown below. Current EUMEDCONNECT3 connectivity is shown on the topology map. The Programme is interested to extend connectivity to further countries within the Arab regions.

The EUMEDCONNECT3 Project is managed by DANTE (Delivery of Advanced Network Technology to Europe). DANTE plans, builds and operates advanced networks for research and education. It is owned by European NRENs (national research and education networks), and works in partnership with them and in cooperation with the European Commission. DANTE provides the data communications infrastructure essential to the development of the global research community.

### CHAIN-REDS

"Coordination and Harmonization of Advanced e-Infrastructures for Research and Education Data Sharing" is an EC FP7 collaboration project with vision to promote and support technological and scientific collaboration across different e-Infrastructures established and operated in various continents in order to facilitate their uptake and use by established and emerging Virtual Research Communities (VRCs) but also by single researchers, promoting instruments and practices that can facilitate their inclusion in the community of users.



The project strives not only to disseminate exchange and reinforce the best practices currently adopted in Europe and other continents, but also promote the progress of interoperability among different regional e-Infrastructures. CHAIN-REDS gathers the main stakeholders of regional e-Infrastructures, collectively engaged in studying and defining a path towards a global e-Infrastructure ecosystem that will allow VRCs, research groups and even single researchers to access and efficiently use worldwide distributed resources (i.e. computing, storage, data, services, tools, applications). CHAIN-REDS will leverage the efforts of the previous "regional projects" and also build on the most recent developments in the fields of Clouds, HPC, and Data Sharing. In the following, the specific objectives are defined and an overview of how these objectives will be reached following a number of lines of action.

## The GÉANT Association

It is the leading collaboration on network and related infrastructure and services for the benefit of research and education, contributing to Europe's economic growth and competitiveness.



The GÉANT Association:

- provides practical support for members, educators, researchers and other partners to collaborate, innovate, share knowledge and agree on policies and strategies;
- plans, procures, builds and operates large-scale, advanced international high-speed networks, including the 500 Gbps pan-European GÉANT network;
- organises events such as workshops, meetings and conferences, including TNC - Europe's largest networking conference for research and education;
- develops, operates and supports services relating to such areas as trust and identity, security and certification, mobility and access, and media and real-time communications;
- provides staff expertise in procurement, project management, community engagement, network operations, and outreach including dissemination and training;
- liaises with other e-infrastructure organisations, user communities, industry and with the European Union.

The GÉANT Association was formed on 7 October 2014, when its members agreed to change the Articles of Association of TERENA, changing its name to GÉANT, and the majority of DANTE shares were transferred to the GÉANT Association. The GÉANT Project is a major area of the association's work and the association is proud to have adopted the GÉANT name. This restructuring marks a new phase in almost thirty years of collaborative research and education networking in Europe.

## Benefits of the new organisation

The main benefits of this restructuring are simplified governance, more efficient management, more flexible use of resources and a more inclusive membership. Members, services, operations and relationships with partners and related communities should see no adverse effects. Indeed, this restructuring will strengthen the European research and education networking community as a whole.

## Organisation structure

The GÉANT Association is owned by its core membership. This includes 36 National Members, which are European national research and education network (NREN) organisations, and one Representative Member - NORDUnet - which participates on behalf of five Nordic NRENs. Associates are also welcome and include commercial organisations and multi-national research infrastructures and projects.

## Internet2

is an exceptional community of U.S. and international leaders in research, academia, industry and government who create and collaborate via innovative technologies. Together, we accelerate research discovery, advance national and global education, and improve the delivery of public services. Our community touches nearly every major innovation that defines our modern digital lives, and we continue to define «what's next.»



The mission of Internet2 Special Interest Group (SIG) on Emerging National Research and Education Networks is to bring together the international community to address advancing the state of high-performance networking for research and education in underserved places around the world. Internet2 SIG provides a forum for:

- Sharing information about current initiatives and facilities/data/researchers that need to be reached
- Sharing challenges, opportunities and successes among both emerging and established NRENs
- Discussing possible roles for the Internet2 community

Participants are encouraged to share challenges, ideas, opportunities and successful case studies based on their own experiences on the NREN SIG collaboration site.

Currently, there are four active regional interest groups: Caribbean Interest Group, South Asia Interest Group, Middle East Interest Group, and Africa Interest Group. In the past, the SIG has sponsored a number of workshops focused on emerging NRENs, particularly in Sub-Saharan Africa and South Asia, and have held several meetings including the First International Platform on Integrating Arab e-infrastructure in a Global Environment e-AGE 2011.

## Talal Abu-Ghazaleh Organisation

Founded in 1972, TAG-Org is an international professional services group with 80 offices worldwide and non-exclusive strategic alliance agreements with various networks and individual firms thus enabling it to choose a firm best suited to its clients' needs in virtually every country in the world.



TAG-Org is the largest global group of professional services firms in the fields of Accounting, External Audit, Internal Audit, Corporate Governance, Taxation, Educational Consultancy, Economic and Strategic studies, Management Advisory Services, Professional and Technical Training, Technology Transfer Project Management, Real Estate Management, Investors and Business Advisory Services, Human Resources and Recruitment Services, e-Government, e-Commerce, e-Education, IT and

Security Audit, Web Design, Professional Interpretation and Translation, Website Arabization, Domain Names Registration, ICT Strategic Planning, ERP Consulting Services, IT and Internet Skills Training and Examinations, Intellectual Property News Agency, IP Business and Asset Valuation and Branding Services, IP Registration and Protection, Intellectual Property Renewals, IPR Protection and Management, Legal Services, and Public Offering.

TAG-Org has acquired an outstanding record of success among its clients, which include important agencies, international and Pan-Arab governmental funding organisations, as well as leading companies in banking, industry, insurance and commerce. We have successfully assisted these clients with complex business and management decisions involving people, equipment, facilities and capital.

## **AROQA**

The Arab Organisation for Quality Assurance in Education (AROQA) is an international non-profit independent association established in Belgium in July 2007 chaired by Dr. Talal Abu Ghazaleh, with the fundamental objective of raising the quality of education in the Arab world.

المنظمة العربية لضمان الجودة في التعليم  
The Arab Organization for Quality Assurance in EDUCATION



AROQA works hard to foster the Pan-Arab quality assurance and accreditation activities in education by contributing to academic excellence and innovation, raising relevance of education and improving quality of instruction to boost the work of the universities within the Arab world so that they rank amongst the world's top institutions. It also actively contributes to improving the quality of education in the Arab world through providing quality assurance review, qualification and capacity-building services, as well as disseminating good practices in the field of quality assurance, while conducting its activities in collaboration with Arab, regional and international organisations working in the field of quality assurance in education.

## Sponsors

### Gold Sponsor



Naseej is the leading knowledge solutions provider in the Arab World serving the region's top Academic & research institutes, cultural centers, and government organizations since 1989. Naseej delivers world-class solutions and services that enable our partners to manage and share knowledge and information.

At Naseej, our vision has always focused on being a true partner to our customers and an active contributor to the spread of knowledge in our societies, with the ultimate objective of empowering organizations and individuals in the Arab world with the tools, technologies, systems, and best practices to manage and share knowledge and information. Naseej provides Academic and Higher Education institutes in the region with comprehensive and integrated solutions and services designed to enable Academic institutions to actively contribute to the success of their students.

Naseej employs over 400 highly skilled professionals throughout the region, in the fields of Knowledge Management, Information Technology and Business Development that collaborate and work together to deliver cutting-edge solutions and services to its partners that includes, e-learning solutions and services, Campus Management Solutions, Knowledge and Library Management Systems, e-learning content creation and management, and much more. For more information on Naseej solutions please visit [www.naseej.com](http://www.naseej.com)

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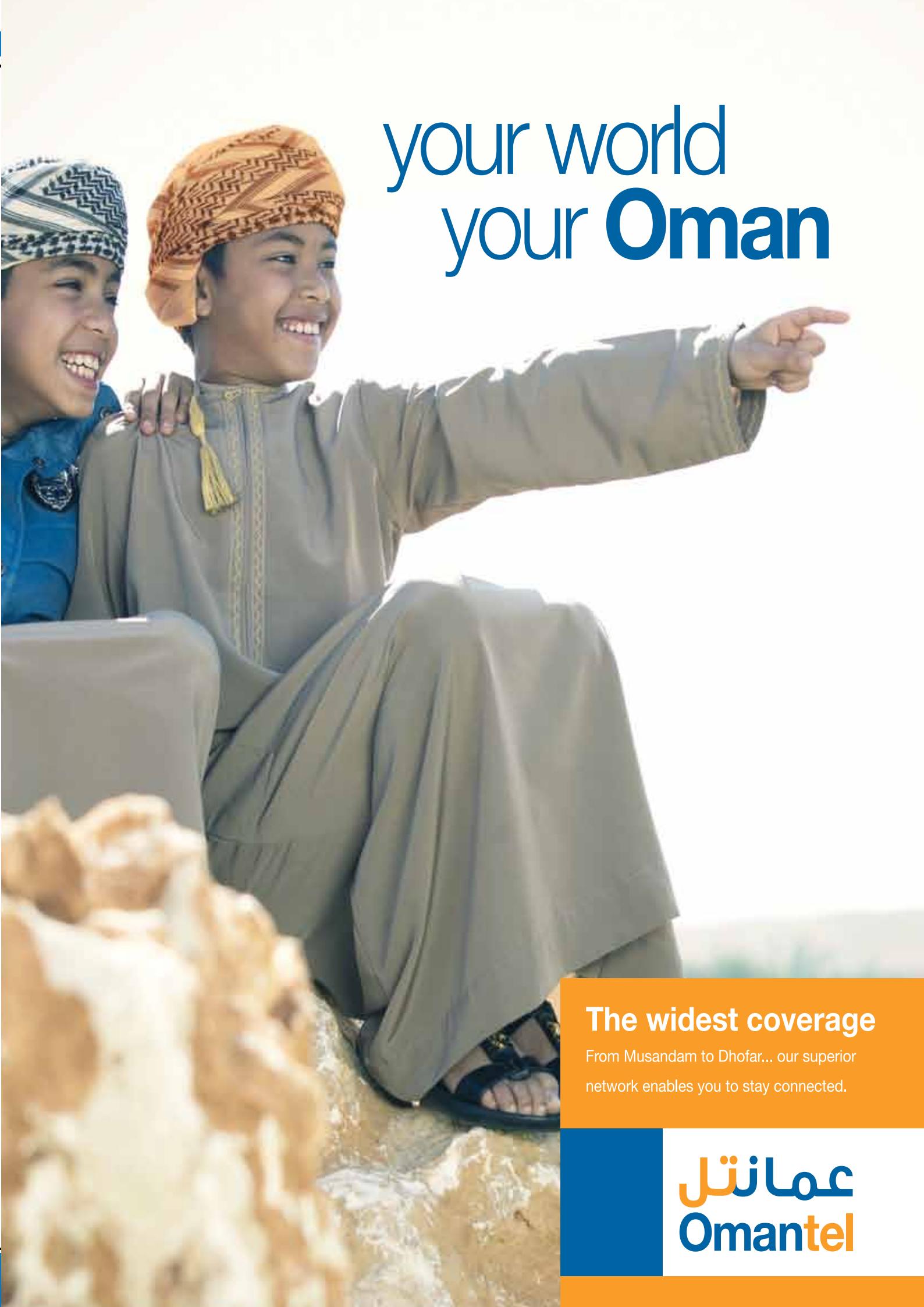
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Omantel has offered the full spectrum of telecommunications solutions to the people and businesses of Oman since the dawn of the Renaissance in 1970. Over the years, as the pioneering telecommunications supplier, we have striven to connect even the most remote communities to each other and to the rest of the world. As a pillar of the Omani economy, Omantel has been a leading player in Oman's progress and national development.

Omantel is the pioneer provider of leading edge telecommunications services in the Sultanate of Oman connecting individuals, enterprises and government across the country through a state-of-the-art network. By offering an unmatched range of innovative products and after-sales service, Omantel is the market leader. We serve our customers nationwide through online channels, shops and distributors. Omantel is listed on the Muscat Stock Market and trades under the name OTL.OM

Omantel is considered one of the most prominent and competitive wholesale telecommunication providers in the Middle East region. In addition it is one of the leading companies in the field of submarine cable networks and a key participant in several submarine cables, which link Asia, Europe and America passing through the Middle East region, meeting the international capacity requirements of clients locally and internationally, thereby sustaining the Company's leading position among its competitors.



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UAE-IX is the first carrier neutral Internet Exchange for the Middle East that interconnects global networks and, above all, network operators and content providers in the GCC region. The UAE-IX is built on a fully redundant switching platform powered by DE-CIX, the world's largest Internet Exchange Operator. UAE-IX is located in Dubai in two high-class carrier-neutral data centres, Datamena and Equinix. Initiated by the UAE's Telecommunication Regulatory Authority (TRA) and powered by DE-CIX, UAE-IX delivers a highly available local alternative for regional traffic exchange, localizing Internet content. For more information, please go to [www.uae-ix.net](http://www.uae-ix.net)



## Keep local traffic local

Join the first neutral Internet exchange  
in the Middle East



60 years of science for peace. This year CERN is celebrating 60 years of science for peace. CERN, the European Organization for Nuclear Research, is the largest particle physics laboratory in the world, where physicists and engineers are probing the fundamental structure of the universe. They use the world's most complex scientific instruments to study the basic constituents of matter – the fundamental particles.

At the forefront of CERN research is the largest scientific tool in the world, the Large Hadron Collider. A particle accelerator 27km in circumference, the LHC is buried 100 metres underground. Four huge detectors study the particle collisions generated by the LHC. Two of these – ATLAS and CMS - recently found the Higgs boson, one of the greatest discoveries in physics.

To conduct science at the frontiers of knowledge, CERN develops state-of-the-art technology, which has found applications in fields as diverse as vacuums and medicine. As well as knowledge transfer, CERN educates the scientists of tomorrow through its education and outreach programmes.

Founded in 1954 and based astride the Franco-Swiss border near Geneva, CERN has become a prime example of international collaboration. It has 21 Member States and involves today more than 10,000 scientists of almost 100 nationalities.



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DAMAMAX (Al-Hadatreh Telecom and Technologies) was established in 2008 as an individual telecommunications licensee in Jordan. DAMAMAX vision is to provide fast, secure, reliable and cost-effective broadband solutions through optical fiber.

DAMAMAX was established to capitalize on the sector's liberalization and the increased demand for IP bandwidth capacity. DAMAMAX was the second operator in Jordan to operate and own an international gateway and provide "dedicated, redundant and fully owned" transmission all the way to the Kingdom's borders.

DAMAMAX international traffic is carried over different submarine cables and terminated in two European POPs: one in London and the other in Frankfurt. Furthermore, strategic alliances with many international partners expanded DAMAMAX's reach to cover more than 1,000 cities in over 100 countries worldwide, ensuring greater global connectivity for its customers.

Additionally, DAMAMAX has strong relations with international connectivity partners, resulting in high network efficiency and significantly reduced latency, not to mention possessing long standing relations with international strategic technical partners that allowed DAMAMAX to provide various IP connectivity solutions including:

- Fiber to The Home/Building (FTTH/FTTB)
- Dedicated Internet Access (DIA)
- National and International Private Leased Circuits (IPLC)
- Multi-Protocol Label Switching (MPLS)
- National and International Ethernet
- Tier 3 Data Center

Today DAMAMAX is the partner of choice for international, public and private sector institutions representing a wide array of industries. Our experienced team of certified engineers provides around-the-clock technical support to ensure flawless service integration.



## Enhancing the way businesses connect and communicate

DamaMax's Global MPLS IP is the ideal solution to securely and efficiently connect distant Institutions, branches, and offices so that together they can instantly share the critical information needed for the proper functioning of today's business. DamaMax also offers a number of services including Global Internet Access and datacenter services all tailored according to your specific needs.

DAMA MAX answered the call for greater and faster communication facilities, through the magic of fiber optics.

## Support Organisation



RIPE NCC is an independent, not-for-profit membership organisation that supports the infrastructure of the Internet through technical coordination in Europe, Middle East and parts of Central Asia. The most prominent activity of the RIPE NCC is to act as the Regional Internet Registry (RIR) providing global Internet resources and related services (IPv4, IPv6 and AS Number resources) to members in the RIPE NCC service region. The RIPE NCC also provides services for the benefit of the Internet community at large.

RIPE NCC members are mainly Internet Service Providers (ISPs), telecommunication organisations, large corporations and governments located in Europe, the Middle East and parts of Central Asia. The RIPE NCC operates from its main office in Amsterdam, the Netherlands and from its new regional office in Dubai.

By expanding its presence in the Middle East, the RIPE NCC hopes to meet increased demand for region-specific support in an area experiencing continuous growth in the Internet and related fields. The Dubai office has a growing team that will help the organisation engage effectively with its members, as well as industry representatives and government bodies in the region. The RIPE NCC has also appointed two local industry experts who will also be able to provide support in Arabic regarding both policy-related and technical issues.



**On 31 March 2014, the RIPE NCC opened its first regional office in Dubai to better connect with our members in the Middle East.**

RIPE NCC | The Lofts, Building B1, Suite 206,  
Dubai Media City, Dubai UAE  
Phone: +971 4364945

### Our Mission:

We serve our members by delivering a high quality registry and supporting the core Internet infrastructure. Connecting people within and beyond the technical community through our inclusive, multi-stakeholder approach, we contribute to an innovative and reliable Internet.

## **Sponsor**



ICANN is a not-for-profit, public-benefit organisation formed in 1998. Its staff operates the Internet's Domain Name System, coordinates allocation and assignment of the Internet's unique identifiers, such as Internet Protocol addresses, accredits generic top-level domain (gTLD) name registrars, and helps facilitate the voices of volunteers worldwide who are dedicated to keeping the Internet secure, stable and interoperable. ICANN promotes competition in the domain name space and helps develop Internet policy.



**icann.org**

**Internet Corporation for Assigned Names & Numbers**

Staring at Culture,  
from the hi-tech point of view

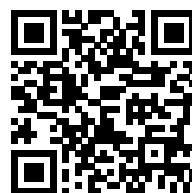
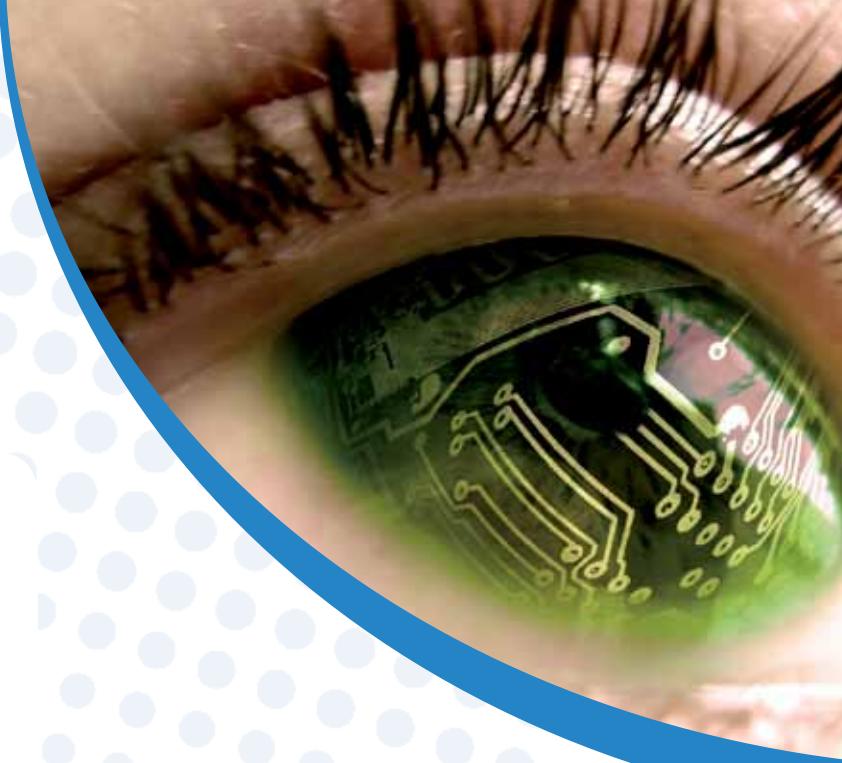
# DIGITAL MEETS CULTURE .net

A cutting edge **online magazine**

Digital Meets Culture is an interactive online magazine where digital technology and culture collide. It provides, on a truly global scale:

- the widest information about **international projects** and initiatives for the digitization, preservation, and enjoyment of digital cultural heritage;
- tales and talks, as well as **amazing multimedia** contents, for a broad perspective of the latest in digital art;
- up to date **showcases** of the ongoing most relevant acts in the field.

Digital Meets Culture counts on a steadily growing visitors number, currently over 16.000 per month, from all over the world and high-profiled on heritage digital preservation, digital art, humanities computing, cloud computing. That's why it is critical to be showcased on Digital Meets Culture, either for business or research dissemination purposes.



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## Media Partner

[digitalmeetsculture.net](http://digitalmeetsculture.net) is the communication platform run by company Promoter, designed as an on-line magazine about the digital culture, that collects and shares information and events, globally. Currently, it counts over 16000 visits per month, 6000 readers and a large and constantly increasing number of registered users, from all over the world.

[digitalmeetsculture.net](http://digitalmeetsculture.net) is addressed to professionals belonging to different sectors as cultural heritage institutions (museums, libraries and archive managers), technical and scientific area (universities, IT experts, e-infrastructure providers, researchers and SMEs), training and education (teachers, students, vocational trainers).

[digitalmeetsculture.net](http://digitalmeetsculture.net) is aimed also to people interested in the digital art (artists, photographers, performers), and more generally to readers who want to be informed and up-to-date on what is happening in the domain of the encounter of digital technologies with culture and art.

It is a valuable communication tool and an advertising showcase towards a very selected and high-profiled audience, providing extensive information about international projects and initiatives for digitization, preservation, data management and enjoyment of digital cultural heritage.

Beside general contents about culture, art and technologies, [digitalmeetsculture.net](http://digitalmeetsculture.net) offers interesting opportunities for the dissemination and web-presence of scientific projects, by giving wide visibility to the project's activities and achievements, by deepening specific topics through interviews and related articles, and by highlighting news and advertising events as media partner.



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