Introduction

IST-Africa 2014 Conference & Exhibition takes place 06 - 09 May 2014 in Mauritius, as part of IST-Africa Week 2014. An activity of IST-Africa, which is supported by the European Commission and African Union Commission and co-funded under the EU Framework Programme, IST-Africa 2014 is the ninth in an Annual Conference Series bringing together senior representatives from leading public, private, education & research organisations, to discuss ICT policy, showcase research results and share knowledge.

European research activities are structured around consecutive multi-annual programmes, or so-called Framework Programmes. Horizon 2020 sets out the Priorities and thematic areas, including ICT, for 2014 - 2020. Horizon 2020 is fully open to international co-operation with the aim to jointly address major challenges where significant added value is expected to be gained from a world-wide R&D cooperation. In this context, the European Commission has co-funded IST-Africa since 2006, to promote African - European research cooperation and support Information Society and ICT aspects of the Africa-EU Strategic Partnership.

Hosted by the Government of Mauritius through the Ministry of Information Communication Technology and National Computer Board and Technically Co-Sponsored by IEEE, IST-Africa 2014 focuses on the Role of ICT for Africa’s Development and specifically on Applied ICT research in the areas of eHealth, Technology Enhanced Learning and ICT Skills, Digital Libraries, Open Source Software, einfrastructures, Societal Implications of Technology and eGovernment. IST-Africa 2014 will provide a collegiate setting for presentations and discussions of national & regional developments, issues of concern & good practice models, and networking with peers. IST-Africa 2014 will also provide an opportunity to identify potential partners for future proposals under Horizon 2020, the follow on programme to FP7, which commenced in January 2014.

IST-Africa directly supports Information Society, Innovation and ICT aspects of the Africa-EU Strategic Partnership, the African Ministerial Council on Science and Technology (AMCOST) and the Consolidated Plan of Action for the African Regional Action Plan on the Knowledge Economy (ARAPKE).

The goals of the IST-Africa Conference Series are Community Building to facilitate EU-African research cooperation and successful exploitation of research results, to stimulate take-up of RTD results by industry and the public sector, to promote knowledge sharing between commercial, government and research organisations, to exchange experiences about the current state of eAdoption at a sectoral, national or regional level, and to support International Cooperation and open up the European Research Area (ERA) to Africa.

Who will you meet?

IST-Africa 2014 Conference & Exhibition attracts policy makers, practitioners, and researchers from leading commercial, government and research organisations around the world. Unlike many research conferences, IST-Africa provides an opportunity to meet with senior managers, practitioners, project managers, software engineers and researchers from industry, government and research organisations. Delegates and speakers attend to share knowledge, experience and lessons learnt, and network with their peers from around the world.

IST-Africa 2014 Conference & Exhibition also provides the unique opportunity to identify partners and opportunities to co-operate in international ICT research projects co-funded by the European Commission under Horizon 2020. Much of the European research results presented in this year’s conference were co-funded under the FP7 ICT Programme (2007 - 2013).

The Programme

The 3-day programme features an invigorating mix of business and government case studies, technical and policy papers and interactive workshops. As well as opening and closing plenary sessions, delegates may participate in 38 thematically focused parallel sessions featuring different aspects of International Cooperation, eHealth, einfrastructures, Technology Enhanced Learning and ICT Skills, Living Labs, Digital Libraries, Mobile Applications, ICT for Environmental Sustainability, eAgriculture, Societal Implications of Technology and eGovernment. Session Chairs will ensure active discussion and facilitate delegate participation.

In the context of focusing on the Role of ICT for Africa’s Development, the Opening Plenary on Wednesday 07 May features a high level dialogue on Implementation of the Information Society in Africa. The Closing Plenary on Friday 09 May focuses on Initiatives Supporting Development of Regional S&T.

The programme is subject to change and the IST-Africa 2014 Organising Committee reserves the right to alter the contents, venue and/or speakers. This Programme is accurate as at 05 May 2014.

The Venue

IST-Africa 2014 Conference & Exhibition takes place in Le Méridien Ile Maurice, Pointe Aux Piments, Mauritius. The hotel is located x mins by car from the airport.
Networking

Networking is a key feature of the IST-Africa Conference Series. Paper and workshop sessions are designed to maximise knowledge sharing by providing time for interactive discussions during the conference programme itself. Coffee breaks will take place in the Exhibition area to maximise exposure for technology demonstrations and posters and to facilitate informal one-on-one and small group discussions following paper or workshop sessions.

The Delegate Showcase on the Conference Portal allows registered delegates, speakers and exhibitors to publish their own short profile and research interests to facilitate networking before, during and after the conference. Leverage this functionality to contact potential partners in advance and arrange to meet during the conference.

Living Labs Workshop, 06 May

IST-Africa is organising the fourth Annual Living Lab Thematic Working Group Meeting on Tuesday 06 May 2014.

This workshop will facilitate knowledge sharing and collaboration between Innovation Stakeholders and operators of Living Labs and Innovation Spaces, building on progress achieved at previous Working Group Meetings in Nairobi (2013), Dar es Salaam (2012) and Gaborone (2011). This participatory working group meeting will continue building a network of experts, public, private, education and research and societal stakeholders and entrepreneurs committed to Collaborative Innovation as a mechanism to support sustainable socio-economic development in Africa.

IST-Africa 2014 delegates are invited to pre-register for this participatory working group meeting as part of online registration.

Conference Proceedings

The IST-Africa 2014 conference proceedings will be published on CD-ROM and on the Conference Portal. Each delegate will receive a free copy of the conference proceedings at Registration.

Following the conference, registered delegates will have access to all PowerPoint presentations, which will be published on the Conference Portal. The IST-Africa 2014 Conference Proceedings will also be submitted for publication in IEEE Xplore.

Security, Health and Safety

Please wear your name badge for all IST-Africa activities, as it is your identification and allows you access to the facilities on offer. While the conference area is on a secure site and not open to the general public, it is still necessary to take care of bags, personal computers and other personal belongings.

The organisers cannot accept any responsibility for losses incurred or for personal health and safety. Delegates should ensure that they have personal health insurance and take due care when exploring Mauritius. Any special needs or requirements should be notified to the Conference Secretariat as far in advance of the event as possible.

Hotel Accommodation

Conference rates have been negotiated for delegates and accompanying persons at Le Méridien Ile Maurice (conference venue). Le Méridien Ile Maurice is located 30 minutes drive from Port Louis.

Conference hotel accommodation should be booked online on the IST-Africa Conference portal as part of conference registration.

Delegates are strongly recommended to book their accommodation early as it will be allocated on a first-come, first-served basis. Hotel accommodation can only be confirmed upon receipt of the associated payment. For further information, please visit: www.IST-Africa.org/Conference2014

How to get there

Mauritius is an island nation in the Indian Ocean, about 2,000 kilometres off the southeast coast of the African continent.

There are direct flights to Mauritius, SSR Intl Airport (MRU) from Nairobi (Kenya), Cape Town, Durban, Johannesburg (South Africa), London (UK), Paris (France), Frankfurt (Germany), Zurich (Switzerland).

As Official Airline Carrier, Air Mauritius is offering discounts on scheduled flights to Mauritius up to 5 days prior to IST-Africa. More information is available on the conference portal.

Delegates are advised to book flights and accommodation as early as possible.

Sponsors

IST-Africa 2014 offers a variety of Sponsorship Opportunities to enhance your organisation’s image & standing with the international IST research community. Prominent notice will be given to sponsors on the conference portal, in press releases, together with other benefits and promotional opportunities.

IST-Africa 2014 is hosted by the Government of Mauritius through the Ministry of Information and Communication Technology and National Computer Board. Other Support organisations include SAP Africa, Orange and FinCEAL project.

For further information in relation to providing support, please contact the Conference Secretariat at secretariat@IST-Africa.org
Plenary Session Speakers

Hon, Tassarajen Pillay Chedumbrum
Minister of ICT Mauritius

Mr. Suraj Ramgolam
Chairman, National Computer Board, Mauritius

Mr. Dan Faugoo
Executive Director, National Computer Board, Mauritius

Dr. M.K. Oolun
Executive Director, ICT Authority, Mauritius

Dr. A. Suddhoo
Executive Director, Mauritius Research Council

Prof. A.K. Bakhshi
Executive Director, Tertiary Education Commission (TEC), Mauritius

Prof. N. Jugmohun, Assistant Permanent Secretary, Ministry of Tertiary Education, Science, Research and Technology, Mauritius

Prof. Jean Claude de l’Estrac
Secretary General, Indian Ocean Commission

Zauria Saifodine
Director of ICT Capacity Building, Instituto Nacional de Tecnologias de Informação, e Comunicação, Mozambique

Mr. Morten Møller
Head of Information Society Division, African Union Commission

Mr. Morten Møller
Programme Coordination, DG CONNECT, European Commission, Belgium

Prof. Romeela Mohee
CSK, Vice-Chancellor, University of Mauritius

Dr. Hemant Chittoo
Ag. Director General, University Technology Mauritius

Prof. Darelle Van Greunen
School of ICT, Nelson Mandela Metropolitan University, South Africa

Dr. M.K. Oolun
Executive Director, ICT Authority

Mr. Dan Faugoo
National Computer Board, Mauritius

Mr. Morten Møller
Programme Coordination, DG CONNECT, European Commission, Belgium

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Dr. Hemant Chittoo
Ag. Director General, University Technology Mauritius

Prof. Darelle Van Greunen
School of ICT, Nelson Mandela Metropolitan University, South Africa

The IST-Africa 2014 International Programme Committee includes:

• Paul Cunningham (Conference Chair), IIMC International Information Management Corporation Ltd, Ireland
• Pertiuen Appavoo, Open University of Mauritius
• Dr. Vinay Armoogum, School of Innovative Technology and Engineering, University of Technology, Mauritius
• Sheeba Armoogum, Faculty of Engineering, University of Mauritius
• Dr. Vandana Bassoo, Faculty of Engineering, University of Mauritius
• Dr. Pierre Catherine, School of Innovative Technology and Engineering, University of Technology, Mauritius
• Laurens Cölte, Meraka Institute, CSIR, South Africa
• Miriam Cunningham, IIMC International Information Management Corporation Ltd, Ireland
• Kim Davis, Research Council of Norway, Norway
• Razvi Doomun, Department of Computer Science and Engineering, University of Mauritius
• Prof. Love Ekenberg, DSV, University of Stockholm, Sweden
• Ravi Foogooa, School of Innovative Technology and Engineering, University of Technology, Mauritius
• Dr. David Gichoya, Moi University, Kenya
• Prof. Marien Herselman, Living Labs of Southern Africa Network, South Africa
• Dr. Mussawir Hosany, Faculty of Engineering, University of Mauritius
• Dr. Mike Joy, University of Warwick, United Kingdom
• Dr. Bernhard R. Katzy, CeTIM, The Netherlands
• Kristiina Lahde, TANZICT Programme, Tanzania
• Assil Lotun, Mauritius
• Gareth MacNaughton, CISCO, United Kingdom
• Dr. Ayub Manya, Ministry of Health, Kenya
• Prof. Maurice Mars, University of KwaZulu-Natal, South Africa
• Girish Mautadin, Mauritius
• Loi Namugenyi, Uganda National Council for Science & Technology
• Dr. Sue Pendell, Colorado State University, United States
• Amreesh Phokeer, AFRICNIC, Mauritius
• Sameerchand Pudaruth, Computer Science and Engineering Department, University of Mauritius
• Matti Sinko, Finland
• Bernard Stevenot, SpaceBel, Belgium
• Richard Stevens, Stevens Consultants, Italy
• Dr. Geerish Suddul, School of Innovative Technology and Engineering, University of Technology, Mauritius
• Roopesh Sunkur, Faculty of Engineering, University of Mauritius
• Prof. Darelle Van Greunen, Nelson Mandela Metropolitan University/Computer Society of South Africa

Organising Committee

• Miriam Cunningham, IIMC, Ireland
• Paul Cunningham, IIMC, Ireland
• Dan Faugoo, National Computer Board, Mauritius
• Ismael Limaia, National Computer Board, Mauritius

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International Programme Committee

A distinguished Programme Committee has been formed to review and provide feedback on papers and presentations, and chair sessions.

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e-mail: secretariat@IST-Africa.org
www.IST-Africa.org/Conference2014
Wednesday, May 07, 2014

08:00 Opening Plenary 1a: Opening Plenary
Moderator: Verna Pillay, Ministry of ICT, Mauritius

09:00 Plenary Session 2a: Introduction to Horizon 2020
Moderator: Paul Cunningham, IIMC, Ireland

10:30 Coffee Break

11:00 Plenary Session 2a: High-level Roundtable on Implementation of the Information Society in Africa
Moderator: Paul Cunningham, IIMC, Ireland
RoundTable Participants include:
Mr Suraj Ramgolam, Chairman, National Computer Board, Mauritius
Dr M. K Oolun, Executive Director, ICT Authority, Mauritius
Dr A Sudhoo, Executive Director, Mauritius Research Council
Mr N. Jugmohunsing, Assistant Permanent Secretary, Ministry of Tertiary Education, Science, Research and Technology, Mauritius
Prof. A.K. Bakhshi, Executive Director of Tertiary Education Commission (TEC), Mauritius
Zauria Saffodine, Director of ICT Capacity Building, Instituto Nacional de Tecnologias de Informação, e Comunicação, Mozambique
Moctar Yedaly, Head of Information Society Division, African Union Commission
Prof. A. K. Baikshi, Executive Director of Tertiary Education Commission (TEC), Mauritius
Zauria Saffodine, Director of ICT Capacity Building, Instituto Nacional de Tecnologias de Informação, e Comunicação, Moçambique
Moctar Yedaly, Head of Information Society Division, African Union Commission
Prof. Romance Mahoe, CSK, Vice-Chancellor, University of Mauritius
Dr Herman Chittoo, Ag. Director General, University Technology Mauritius
Prof. Darell Van Greunen, School of ICT, Nelson Mandela Metropolitan University, South Africa

12:30 Lunch

14:00 Session 3c: Technology-enhanced Learning
Chair: Perien Appavoo, Open University of Mauritius
Adoption of e-Assessment in Strathmore University
Delphine Mukandutuye, Strathmore University, Kenya
Incorporating a Guided Problem-Solving Method into Activemath using the House Model and Logistic Regression
Kyle Stone, Tshwane university of Technology, South Africa
Students Experiences of Using Wiki Spaces to Support Collaborative Learning in a Blended Classroom; A Case of Kenya and KCA Universities in Kenya
Rhoda Gitonga, Kenya University, Kenya
Exploring Three Approaches to Offer Distance Learning Courses through a Social Network of Health Researchers in Three African Countries
Maximo Ramirez Robles, Universidad Politécnica de Madrid, Spain
Are Facebook “likes” Enough to Assess Student Satisfaction in Open Distance Learning (ODL)? An Incursion into Students’ Experience of ODL through Online Social Networks (OSNs)
Minral Sohoory, Open University of Mauritius

14:00 Session 3d: Mobile Applications I
Chair: Sameerchand Pudarath, University of Mauritius
Connectivity within Indian Ocean Islands (Mauritius, Seychelles, Comoros, Reunion and Madagascar) – A Case for a Regional Internet Exchange
Mahen Soobron, Ministry of ICT, Mauritius
Towards a Collaborative Approach to Web Service Monitoring: In Appreciation of Connectivity Challenges in Africa
Ishmael Maktiila, CSIR - Meraka Institute / Nelson Mandela Metropolitan University, South Africa
Securing Mobile Applications in Hostile Rural Environments
Rossoe De Bruin, University of Johannesburg, South Africa

15:30 Coffee Break

16:00 Workshop 4a: Horizon 2020
Joint IST-Africa CAAST-Net Plus Session
Moderator: Paul Cunningham, IIMC, Ireland
Overview of Horizon 2020 Participation Rules & Instruments
Miriam Cunningham, IIMC / IST-Africa, Ireland
Proposal Preparation
Paul Cunningham, IIMC / IST-Africa, Ireland
Discussion, Q&A
Morten Møller, Programme Coordination, DG CONNECT, European Commission
Paul Cunningham, IIMC / IST-Africa, Ireland
George Essegbey, CSIR, Science and Technology Policy Research Institute, Ghana
Brokerage Session
Each participating organisation has a maximum of one minute to outline their research areas, track record and why delegates should meet with them during the conference to discuss collaboration.
16:00 Session 4c: Technology Enhanced Learning in Higher Education Institutions
Chair: David Gichoya, Moi University, Kenya

Flipping an Online PhD Programme between Sudan and South Africa
Izzeldin Osman, Sudan university of Science and Technology, Sudan

Tabitha Kihara, Moi University, Kenya

A Cloud-based Architecture for eEducation Content Provision: The Case of Nciba Circuit of the Comfivaba District of South Africa
Nomusa Dlodlo, CSIR, South Africa

16:00 Session 4d: Mobile Applications II
Chair: Vinay Armoogum, University of Technology, Mauritius

Challenges Encountered by Older Adults while Navigating Mobile Device User Interfaces
Margaret Ngugi, Jomo Kenyatta University of Agriculture and Technology, Kenya

Visual Interfaces as an Approach for providing Mobile Services and Mobile content to low literate users in South Africa
Muzi Matyila, CSIR, South Africa

The Adoption of Mobile Technology as a Tool for Situational Crime Prevention in Kenya
Collins Oduor, @LabAfrica, Strathmore University, Kenya

Integration of Mobile, Big Data, Sensors, and Social Media: Impact on Daily Life and Business
Mario Gastaldi, Eevonne Digital, Mauritius

16:00 Session 4e: eGovernment II
Chair: Pierre Clarel Catherine, University of Technology, Mauritius

Development of a Data Model for Semantic Exploitation of Municipality Records in South Africa
Desmond Mogotlane, Vaal University of Technology, South Africa

Leveraging Linked Data to Enhance Programmers’ Access to Government Open Data
Isaiah Mulang, Jomo Kenyatta University of Agriculture and Technology, Kenya

Impediments to Interagency Statistical Information Sharing amongst Government agencies in Uganda: a G2G Adoption
Flavia Kyeyago, Uganda Bureau of Statistics, Uganda

Towards the Development of a Citizen-Centric Framework for Evaluating the Impact of E-government: A Case Study of Developing Countries
Ibrahim Othieno, University of Nairobi, Kenya

17:30 End of Parallel Sessions
19:00 Networking Reception - Supported by FinCEAL
20:00 Conference Dinner - Hosted by Ministry of ICT
State of the Research and Education Network Infrastructure in the WACREN region
Omo Oyi, WACREN, Nigeria

Addressing the Connectivity Gaps in Sub-Saharan Africa
Cathrin Stover, DANTE, UK

Summing up

09:00 Session 5a: Cyber Security
Chair: Amreesh Phokeer, AFRINIC, Mauritius

Survey of Practical Security Frameworks for Defending SIP Based VoIP Systems against DoS/DDoS Attacks
Sheeba Armoogum, University of Mauritius, Mauritius

The Development of a Cyber Security Policy in Developing Regions and the Impact on Stakeholders
Ian Ellefsen, University of Johannesburg, South Africa

Applying Keystroke Dynamics Techniques to Facial Thermography for Verification
George Henderson, University of Johannesburg, South Africa

An Open Speaker Recognition Enabled Identification and Authentication System
Michal Adamski, University of Johannesburg, South Africa

Requirements for Secure Graphical Passwords
Mohkadi Rasekgala, CSIR, South Africa

10:30 Coffee Break

11:00 Session 6a: eHealth - Health Information Systems
Chair: Khadija Malima, COSTECH, Tanzania

A Method for Selecting E-Health Standards to Support Interoperability of Healthcare Information Systems
Funrun Adobesan, Council for Scientific and Industrial Research, South Africa

Health Management Information Systems (HMIS) Implementation Characteristics that Influence the Quality of Healthcare in Private Hospitals in Kenya
Jimmy Macharia, United States International University, Kenya

Implementing eHealth in Tanzania; Opportunities and Challenges 2009 - 2014
Khadija Malima, COSTECH, Tanzania

Open Source Software and Bureaucracy: A Case of Health Information System in Zanzibar
Abubakar Bakar, The State University of Zanzibar, Tanzania

Perception of Sudan Peritoneal Dialysis Program’s Staff to Medical Electronic Records
Rafaa Ashammallah Gbobirol Morgos, Ministry of Science & Communication, Sudan

11:00 Workshop 6b: IST-Africa - Research Capacities & Priorities II
Chair: Ronell Alberts, CSIR, South Africa

ICT Initiatives and Research Capacity in Malawi
Ebony Miskawanthu, National Commission for Science and Technology, Malawi

ICT Initiatives and Research Capacity in Mozambique
Zauria Saintodine, National Institute for ICT, Mozambique

ICT Initiatives and Research Capacity in Angola
Antonio Alcochete, Ministerio da Ciência e Tecnologia, Angola

ICT Initiatives and Research Capacity in Tunisia
Noureddine Hamdi, Ministere de l'Enseignement Supérieur et de la Recherche Scientifique, Tunisia

ICT Initiatives and Research Capacity in Egypt
Halimhamza, Information Technology Industry Development Agency (ITIDA), Egypt

ICT Initiatives and Research Capacity in Senegal
Toumane Doumbouya, Ministere de l'Enseignement Supérieur et de la Recherche, Senegal

11:00 Session 6c: Technology Enhanced Learning
Chair: Cathrin Stover, DANTE, UK

m-Learning System Enhancing Mathematical Concepts (m-LSEMC): A Case Study of University of Namibia and Rhodes Jameson Mbale, University of Namibia, Namibia

Study Examining Whether the Computer Science Curriculum at the Sudanese High Secondary Schools is Adequate to Qualify the Students to be Computer Literate
Atika ElMubarak, Sudan University of Science and Technology, Sudan

Translation between English and Mauritian Creole: A Statistical Machine Translation Approach
Alfredo M. Ronchi, Politecnico di Milano, Italy

Made in Africa: African Digital Creativity
Khalida Malima, Tanzania Commission for Science and Technology

11:00 Workshop 6d: Exploiting eInfrastructure for Research and Education II
Chair: Omo Oyi, WACREN, Nigeria

Session 2: Panel Discussion on Enabling Communities of Practice

Digital Learning Resources
Bakary Diallo, African Virtual University, Nairobi

SKA
Leon Staphorst, SANREN, South Africa

Grid-Computing
Bruce Becker, SAGRID, South Africa

11:00 Session 6e: Security, Authentication & Biometrics
Chair: Razvi Doorn, University of Mauritius

Information Security Initiatives and Challenges in Mauritius
Kaleem Usmani, CERT-MU, National Computer Board, Mauritius

The Poor Man’s Biometric: Identifying Cost-Effective Biometric System Criteria for SMME’s
Dustin van der Haar, University of Johannesburg, South Africa

Choice of Biometrics
Bibi Nazmeen Boodoo-Jahangeer, University of Mauritius

Hand Biometrics for Security
Maleka Heenaye-Mamode Khan & Naushad Mamode Khan, University of Mauritius

Streamlined Approach to Online Banking Authentication in South Africa and Europe
Frans Blauw, University of Johannesburg, South Africa

Online Social Networks to Online Social Malwoks - the Evolution of an Industry
Candice Louw, University of Johannesburg, South Africa

12:30 Lunch

14:00 Session 7a: eHealth
Chair: Sejojo Phaaroe, Health Research and Laboratory Services, Lesotho

A Secure Data Access Model for the Mauritian Healthcare Service
Oveeyen Moonian, University of Mauritius

A Framework for Implementing Cloud Computing for Record Sharing and Accessing in the Ghanaian Healthcare Sector
Nana Aseyne, Ghana Institute of Management and Public Administration (GIMPA), Ghana

An Integrative ICT Platform for eHealth
Ronell Alberts, CSIR, South Africa

Compiling a Prioritized List of Health Data Quality Challenges in Public Healthcare Systems
Mama Botha, CSIR, South Africa

Implementing Modular Interactive Tiles for Rehabilitation in Tanzania – A Pilot Study
Henrik Hautop Lund, Technical University of Denmark, Denmark

14:00 Workshop 7b: IST-Africa - Research Capacities & Priorities III
Chair: Paul Cunningham, IIMC, Ireland

ICT Initiatives and Research Capacity in Cameroon
National Agency for Information and Communication Technologies (ANTIC), Cameroon

ICT Initiatives and Research Capacity in Kenya
Jacob Ngajih, Ministry of Education, Science and Technology, Kenya

ICT Initiatives and Research Capacity in Uganda
Loi Namugenyi, Uganda National Council for Science & Technology

ICT Initiatives and Research Capacity in Burundi
Tatien Masharabu, Ministry of Higher Education and Scientific Research, Burundi

ICT Initiatives and Research Capacity in Tanzania
Khalida Malima, Tanzania Commission for Science and Technology

ICT Initiatives and Research Capacity in Ethiopia
Leulseged Alemie, Ministry of Communications and Information Technology, Ethiopia
14:00 Session 7c: eSkills
Chair: Vandana Bassoo, University of Mauritius
Uncovering the Competency Gap of Students Employed in Business Process Analyst Roles – An Employer Perspective
Lisa Seymour, University of Cape Town, South Africa
Streamlining Knowledge and Skills Sharing in Africa
Bishoy Louis, Information Technology Institute, Egypt
Anuradha Khoda, University of Nairobi, Kenya

14:00 Workshop 7d: IPv6 Based IoT/M2M, Cloud Computing and ISP/University/NREN Deployment
Chair: Latif Ladid, IPv6 Forum - SnT University of Luxembourg
IPv6 based M2M/Internet of Things (IoT)
Latif Ladid, President IPv6 Forum, Luxembourg
Impact of IPv6 and IoT on Africa
Adel A. Akplogan, AFRINIC, Mauritius
Deployment of IPv6 at the University of Mauritius
Aatish Chindah, University of Technology, Mauritius

14:00 Session 7e: Societal Implications of Technology
Chair: Haitham Hamza, ITIDA, Egypt
Beyond Access: ICT Use in Business by Micro, Small and Medium-sized Enterprises in Ghana and Zambia
Victor Konde, United Nations Economic Commission for Africa, Zambia
Social Services on Wheels: A Sustainable Model to Improve Access in Unreached Communities
Jeicta Kamau, Kyushu University, Japan
User Willingness to accept Friend Requests on SNS: A Facebook Experiment
Fredrik Hattingh, Tshwane University of Technology, South Africa
The Impact of Science, Technology and Innovation to the Informal Sector in Uganda
Aminah Bukenya, UN CST, Uganda

16:00 Session 8c: Digital Libraries & Digital Preservation
Chair: Ebony Miskawanthe, National Commission for Science and Technology, Malawi
Direct Desktop-Repository Deposits with SWORD
Gontlafetse Mosweunyane, University of Botswana
An Overview of Digital Library Projects in Kenyan Universities
Elyjoy Micheni, The Technical University of Kenya
Data Structures for Information Retrieval
Denis Nkweteyim, University of Buea, Cameroon
A Case for Understanding User Experience Challenges confronting Indigenous Knowledge Recorders in Rural Communities in South Africa
Gugu Khalala, CSIR, South Africa

16:00 Session 8d: eInfrastructures
Chair: Neji Check, ANTIC, Cameroon
Experience and feedbacks from the sustainability for the Virtual Atomic and Molecular Data Centre E-infrastructure
Carlo Maria Zwölf, Observatoire de Paris, France
Perum - Modern Approach for User Identity and Service Management
Michal Prochážka, CESNET, Czech Republic
The Role of Governments in IPv6 Transition
Jiri Prusa, CZ.NIC Association, Czech Republic
Using iMEnTORS and Open aid Data to Enhance Coherence of International Aid
Louis Papaenmanuel, eGovLab, Stockholm University, Sweden

16:00 Session 8e: Societal Implications of Technology
Chair: Lieketseng Tjokotsi, Department of Science and Technology, Lesotho
Raising Girls’ Voices with SenseMaker
Rebecca Smith, GirlHub, United Kingdom
Transforming Fragmented Industry into Sustainable Businesses with SMAC Technologies
Subhas Thecka, Charles Telfair Institute, Mauritius
The Potential Value of Mobile Microwork Services in Developing Nations: Research Opportunities and Challenges
Jabu Msweni, University of South Africa, South Africa

17:30 End of Parallel Sessions

Friday, May 09, 2014

[ 8 - 9 ] Final Day

09:00 Session 9a: Cloud Computing
Chair: David Gichoya, Moi University, Kenya
A Business Model for a South African Government Public Cloud Platform
Promise Mvelase, CSIR, South Africa
Cloud Computing Can Re-Shape Uganda
Collins Mwesigwa, Icon Frontiers Uganda Limited, Uganda
Presenting a Framework Utilising the Cloud to Facilitate Asset Management
Willem J.J. Thompson, Tshwane University of Technology, South Africa
09:00 Workshop 9b: Living Labs in Tanzania
Chair: Kristina Lahde, TanzICT Programme, Tanzania
Tanzanian Living Labs - Background
Kristina Lahde, TanzICT Programme, Tanzania
Rapid Growth in a New Living Lab
Novat Karol, Elimu Living Lab, Tanzania
The Challenges of Community-driven Innovation in a University-led Living Lab
Joshua Jacob Mushi, Anusha EcoLab / NM-AIST, Tanzania
GROW Leadership Academy - Experience and Social Franchising with RALabs South Africa
Yusuf Sesassanga, RALabs-Iringa, Tanzania
Lessons from Tanzanian Living Labs - the First Years
Simon Flamand, TANZICT, Tanzania

09:00 Session 9c: Open Source & Open Data Applications
Chair: Roopesh Kevin Sungruk, University of Mauritius
Efficiency and Effectiveness of National Systems of Innovation: The Importance of ICT, the Cases of Ghana and Kenya
Liliana Andriano, UNIDO, Austria
Ambient Intelligence Framework for Web Services aimed at Elderly Users
María Panou, Centre for Research and Technology Hellas, Greece
SmartTouristData Approach for connecting local and global tourist information systems
Přemysl Vohnout, Czech Centre for Science and Society, Czech Republic
SD4Apps
Zbynek Krivanek, Ceske centrum pro Vedu a Spoplecnost, Czech Republic

09:00 Workshop 9d: NCP Training (Closed meeting)

09:00 Session 9e eAgriculture
Chair: R.K. Ramnauth, Food and Agricultural Research and Extension Institute (FAREI), Mauritius
Cattle Monitoring System Using Wireless Sensor Network in Order to Prevent Cattle Rustling
Patrick Nkwari, University of Johannesburg, South Africa
PotatoSense: A Wireless Sensor Network System for Precision Agriculture
Kavi Kumar Khedo, University of Mauritius, Mauritius
A Prototype Mobile Monitoring System for Hydroponic Agriculture
Loic Ndame, Nelson Mandela Metropolitan University, South Africa
FOODIE – Open Data for Agriculture
Karel Charvat, Help service remote sensing s.r.o., Czech Republic

10:30 Coffee Break

11:00 Session 10a: ICT Regulatory Frameworks
Chair: Peacemaker Dlamini, DST, South Africa
Understanding the Maturity of EU Code of Conduct on Data Centres: A Mauritian Case Study Explained
Ashwin Seegomol, National Computer Board, Mauritius
The Institutionalisation of Political and Corporate Governance of Information and Communication Technology in the Public Service of South Africa, a Developing Country
Tersia van der Walt, University of Johannesburg, South Africa
The Importance of ICT Policy in Achieving the Health Millennium Development Goals (MDGs) in Tanzania
Manoj Maharaj, University of KwaZulu-Natal, South Africa

11:00 Session 10b: Innovation Leveraging Living Labs
Chair: Darelle Van Greunen, Nelson Mandela Metropolitan University, South Africa
A Model for the Transformation of the Mauritian Classroom based on the Living Lab Concept
Mohammad Isack Sajjali, University of Mauritius
Co-Constructive ePower Loop – Citizen Driven Innovation in Region Västerbotten, Northern Sweden
Olav Forsgren, Stockholm University, Sweden

11:00 Workshop 10c: Cooperation with Finnish Institutions: Highlighting Expertise and Partnership Opportunities
Chair: Eva Kagiri, UniPID, Finland
Strengthening Cooperation on Science, Technology and Innovation between Finland, Africa and Europe
Eva Kagiri, UniPID, Finland
Living Labs – UFISA Project
Minna Fred, University of Helsinki, Finland
ENHANCE - A Partnership for Positioning African Universities to Spearhead Development of Local Mobile and Wireless Networks
Edward Mufatungwa, Aalto University, Finland
CIER Project - Converged Infrastructure for Emerging Regions
Juha Zidbeck, VTT – Technical Research Centre of Finland
Networking Session with Finnish Partners - 12 representatives from different Finnish Institutions will give 2 min pitches highlighting their areas of expertise and what kind of partners they are looking for.
Participants will then get an opportunity to have one-on-one meetings with the representatives and discuss collaboration opportunities

11:00 Workshop 10d NCP Training (Closed meeting)

11:00 Session 10e: Environmental Sustainability
Chair: Ravi Foogooa, University of Technology, Mauritius
CrowdSourced Weather Reports: An Implementation of the μ Model for Spotting Weather Information in Twitter
Laurie Butgereit, Nelson Mandela Metropolitan University, South Africa
A Wireless Sensor Network Framework for Large-Scale Industrial Water Pollution Monitoring
Yohannes Derbew, Moha Soft Drink Industries (PEPSI), Ethiopia
A Self Green ICT Maturity Assessment Tool for SMEs
Ravi Foogooa, University of Technology, Mauritius
Experience in implementing multi-country Energy Information Systems in West Africa and MENA regions
Mohamad Mahgoub Hamid, RCREEE - Regional Center for Renewable Energy and Energy Efficiency, Egypt

12:30 Lunch

13:30 Closing Plenary 11
Chair: VishnouGondeea, Permanent Secretary, Ministry of Information and Communication Technology, Mauritius
African Internet Exchange System (AXIS)
Moses Bayingana, African Union Commission, Ethiopia
Land Use Mapping using Satellite imagery - the Mauritian Experience
Maryse Chung, Mauritian Sugarcane Industry Research Institute
Prospects of Oceanography - Mauritius
M. V. Ramana, Mauritian Oceanography Institute
New Economic Growth Engines of the Mauritius Economy
K. Poonehasamy, Managing Director, Board of Investment, Mauritius
Best Paper Award
Registration Information

It is necessary for all IST-Africa 2014 delegates to register online. Each delegate should be registered separately.

Conference Fees

Authors Fees (Due by 24 March)
- Authors - African States €100
- Authors - EU New Member States, EU Candidate & Developing Countries €200
- Authors - All countries except above €300

Please note that the author fee is only available to accepted presenters in the Programme (one presenter per paper). Co-authors who wish to participate should register as Delegates.

Delegates’ Fees - Early Bird up to 24 March
- Delegate Early Bird - African States €200
- Delegate Early Bird - EU New Member States, EU Candidate Countries and Developing Countries €300
- Delegate Early Bird - All countries except above €400

Delegates’ Fees - Full Fee from 25 March
- Delegate Full Price - African States €250
- Delegate Full Price - EU New Member States, EU Candidate & Developing Countries €400
- Delegate Full Price - All countries except above €500

The Conference Fee includes:
- Entrance to all plenary and parallel sessions
- Documentation with proceedings on CD-Rom
- Three luncheons and refreshments at morning and afternoon breaks

Terms & Conditions

1. All authors who are presenting a paper at IST-Africa 2014 must complete their payment registration by 24 March at the latest, prior to publication of the Final Programme.
2. In the case where a paper is jointly authored, the presenter of the paper is considered to be the author/presenter from a payment registration point of view. All co-authors are considered to be delegates.
3. Each presenter will present one paper in the Programme.
4. Delegates’ fees must be paid before admission to the Conference.
5. IEEE Members are entitled to apply for a 10% discount on the appropriate fee. Please provide Membership No. as part of online registration and fax a copy of valid Membership card to +353-1-8170606.
6. There are no refunds for cancellations but substitutions may be made at any time prior to the event by contacting the Conference Secretariat.
7. Each individual must be registered separately on the IST-Africa Conference portal.
8. Payment may be made by bank transfer or credit card (with some restrictions). Payments made by bank transfer must be net of any bank charges and the payment instruction should refer to “IST-Africa 2014 Conference”, your name, organisation and invoice number (if relevant).
9. Receipts are automatically issued electronically upon receipt of payment. If your organisation requires an invoice to process payment registration by bank transfer, please contact the Conference Secretariat.
10. Conference registration or hotel accommodation is not confirmed until full payment is received.
11. Letters of invitation can only be issued following delegate registration online and receipt of payment.
12. The registration desk will open on Tuesday 06 May from 16:00 to 19:00 and will remain open during normal conference hours from 08:00 on Wednesday.

Major Places of Interest

While in Mauritius, delegates should visit Grand Bay, Balacalava Ruins (North) Flacq Market, Ile aux Cerfs (East), Vieux Grand Port, Ile aux Aigrettes, Mahebourg, Domaine du Chasseur (South-East) Martello Tower, Chamaret, Salt Pans, Casela (West) and Ganga Talao, Grand Bassin and Black River Gorges (Inland).

Climate

Mauritius has a moderate climate during May with average temperatures of 20 - 25 degrees Celsius during the day. Rains are possible during May and delegates should bring rain wear.

Visa Information

Conference delegates should contact the Mauritian Embassy in your Country of Residence six to eight weeks prior to travelling, to determine if you require a visa, can secure a visa on arrival or must apply for a visa in advance.

African countries whose nationals do not require a visa for Mauritius include: Angola, Botswana, Burundi, Egypt, Gabon, Gambia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Tanzania, Tunisia, Uganda, Zambia, Zimbabwe.

European countries whose nationals do not require a visa for Mauritius include: Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovenia, Slovakia, Spain, Switzerland, Turkey, UK

If you are travelling through other countries to get to Mauritius, it is necessary to check if you require transit visas.

The IST-Africa 2014 Organising Committee can only issue Letters of Invitation for visa purposes to delegates after payment for their conference registration has been received.

Vaccinations

Proof of Yellow Fever vaccine (Yellow Book) is required for those arriving from a yellow-fever-infected area in Africa

While no specific vaccinations are required for Mauritius except for delegates coming from Yellow Fever areas, conference delegates travelling to Africa for the first time are recommended to have up to date Tetanus, Hepatitis A and Typhoid vaccines.

Please engage with your personal physician or travel health clinic four to six weeks prior to travelling. If you are travelling through another country on the way to Mauritius, please check if you require any vaccinations for that country.
IST-Africa Initiative

Supported by the European Commission (EC) and African Union Commission (AUC), and Co-Funded under FP7 (Contract 611795), IST-Africa facilitates and supports:

- International Innovation, Research and Policy Cooperation
- Knowledge Sharing and Skills Transfer between IST-Africa Partners
- Collaborative Innovation, Entrepreneurship & Adoption of Living Labs
- Africa – EU Strategic Partnership (Information Society, ICT, Innovation)

IST-Africa Activities include:

- Annual IST-Africa Week Hosted by IST-Africa Partner Governments
- Analysis of African Adoption, Implementation, Policy and Research Priorities
- Analysis of African Innovation Spaces, Living Labs and Research Capacity of HEIs
- Horizon 2020 and Living Labs Training Workshops in IST-Africa Partner Countries to Support Research
- Capacity Building and Accelerate Information Society Development and ICT Adoption across Africa
- Participation in Information Society, ICT and Innovation related International Cooperation (including
  - Africa - EU Strategic Partnership, EU - AUC Living Labs Taskforce for Africa, CODIST - UNECA and WSIS)
- Horizon 2020 Help Desk supporting African - European Research Collaboration

IST-Africa is a collaborative initiative between IIMC International Information Management Corporation Limited (Ireland, Coordinator), Ministerio da Ciencia e Tecnologia (Angola), Department of Science and Technology (South Africa), Ministry of Infrastructure, Science and Technology (Botswana), Ministry of Communications, Science and Technology (Lesotho), Ministry of Education (Namibia), ICT Policy Implementation Technical Unit (Mozambique), National Computer Board (Mauritius), Ministry of Information Communication Technology (Swaziland), National Commission for Science and Technology (Malawi), COSTECH - Tanzania Commission for Science and Technology, Uganda National Council for Science and Technology, Ministry of Higher Education, Science and Technology (Kenya), Ministere de l'Enseignement Supérieur et de la Recherche Scientifique (Burundi), Ministry of Science and Technology (Ethiopia), Agence Nationale des Technologies de l’Information et de la Communication (Cameroon), Ministère de l’Enseignement Supérieur, des Universités et de la Recherche (Senegal), Ministere de l’Enseignement Supérieur et de la Recherche Scientifique (Tunisia) and Ministry of Communications and Information Technology (Egypt).

Horizon 2020

Horizon 2020 commenced in January 2014 as the new Framework Programme to implement the Innovation Union with research and innovation funds of €80 billion from 2014 - 2020.

Horizon 2020 addresses all research and innovation funding that was previously provided through the Framework Programmes for Research and Technical Development (e.g. FP7), Competitiveness and Innovation Programme (CIP) and European Institute of Innovation and Technology.

Three main priorities include:

- Excellence Science – Research Infrastructures, Marie Curie (Mobility Grants), Future and Emerging Technologies
- Leadership in Enabling and Industrial Technologies (LEIT) – Components & Systems, Advanced Computing, Future Internet, Content Technologies and Information Management, Robotics, Micro and Nano-electronics and photonics

The Work Programmes for each thematic area were published on 11 December 2013.

ICT is a horizontal activity that is included across a number of Work Programmes within LEIT and within Societal Challenges.


Please visit

www.ist-africa.org/home/default.asp?page=horizon2020

to download the individual Work Programmes and IST-Africa Guide to 2014 Calls for Proposals