

Innovations for Digital Inclusion

An ITU-T Kaleidoscope academic conference
technically co-sponsored by
IEEE Communications Society
Mar del Plata, Argentina
31 August – 1 September 2009

Monday 31 August 2009

09:00-10:30 Opening Plenary

Plenary chairman: Yoichi Maeda, Kaleidoscope General Chairman / NTT

- **Welcome** by *Carlos Lisandro Salas*, Secretary for Communications and *Ceferino Namuncura*, Head Communications National Commission, Argentina
- **Address and introduction to ITU-T** by *Malcolm Johnson*, Director, Telecommunication Standardization Bureau, ITU
- **Keynote speech** by *Tomonori Aoyama*, Keio University, Japan
- **Keynote presentation** by *Carlos Uzal*, Telefónica Latin America, Argentina and *Sigurd Schuster*, Nokia Siemens Networks, Germany

10:30-11:00 Coffee break

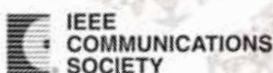
11:00-12:30 SESSION 1 – Is digital inclusion a good thing?

Session chairman: Mostafa Hashem Sherif, AT&T, USA

- **Invited paper** by *Richard M Stallman*, President, Free Software Foundation, USA
- **Open discussion**

12:30-14:00 Lunch

Technical co-sponsor:



Supporters:



Organizer:



14:00-15:30 SESSION 2 – Leveraging network-enabled services for digital inclusion

Session chairman: Alfredo Terzoli, Rhodes University, South Africa

- **Invited paper:** Technology for losers: re-equipping the excluded
Erkki Allan Sutinen, University of Joensuu, Finland
- **S2.1 Towards Digital Blood-Banking***
Vasileios Spyropoulos, Maria Botsivaly, Aris Tzavaras (Technological Education Institute of Athens, GR); Panagiotoula Spyropoulou (General Hospital of Piraeus Tzaneion, GR)
- **S2.2 Quality of Service management for ISP: A model and implementation methodology based on ITU-T Rec.802 framework***
Eva Ibarrola (University of the Basque Country, ES); Jin Xiao (University of Waterloo, CA); Fidel Liberal, Armando Ferro (University of the Basque Country, ES)
- **S2.3 Enhanced Advertising for Next Generation Networks***
Jose Simões, Thomas Magedanz (FOKUS Fraunhofer Institute, DE); Luca Lamorte, Moltchanov Boris, Carmen Criminisi (Telecom Italia, IT)

15:30-16:00 Coffee break

16:00-17:50 Session 3 – Bridging the Digital Divide for the individual

Session chairman: Kai Jacobs, RWTH Aachen University, Germany

- **Invited paper:** Interplay and implications of intellectual property and academic - Industry collaboration to foster digital inclusion
Louis Masi, Dawn Tew (IBM Corporation)
- **S3.1 A model and system architecture for ubiquitous sensor network businesses***
Masugi Inoue (National Institute of Information and Communications Technology, JP)
- **S3.2 Discrimination in NGN service markets: Opportunity or barrier to digital inclusion?***
Fernando Beltran (University of Auckland, NZ); *Lina Gomez* (Centro de Investigacion de las Telecomunicaciones, CO)
- **S3.3 Global effort on Bridging the Digital Divide and the role of ICT standardization***
Mario Canazza (National Telecommunications Agency, BR)
- **S3.4 Universal Digital Inclusion: Beyond Connectivity, Affordability and Capability***
Mamello Thinyane (University of Fort Hare, ZA); *Alfredo Terzoli* (Rhodes University, ZA)

18:00-19:30 Poster session - Showcasing Digital Inclusion opportunities

(see the last page for list of papers)

19:30-21:00 Welcome reception

* Nominees for the three best paper awards.

Tuesday 1 September 2009

09:00-10:30 Session 4 – Network architectures today and tomorrow

Session chairman: Helmut Schink, NSN, Germany

- **S4.1 *RoFSO: A universal platform for convergence of fiber and free-space optical communication networks****
Kamugisha Kazaura, Kazuhiko Wakamori, Mitsuji Matsumoto (Waseda University, JP); Takeshi Higashino, Katsutoshi Tsukamoto, Shozo Komaki (Osaka University, JP)
- **S4.2 *An ID/Locator Split Architecture of Future Networks****
Ved Kafle, Hideki Otsuki, Masugi Inoue (National Institute of Information and Communications Technology, JP)
- **S4.3 *Mobile-NGN Architecture based on REST concept****
Yoshitoshi Murata (Iwate Prefectural University, JP)
- **S4.4 *Reliability and Scalability Analysis of Low Cost Long Distance IP-Based Wireless Networks***
Riccardo Stefanelli, Alessandro Galardini (iXem Labs, Politecnico di Torino, IT); *Daniele Trinchero* (Politecnico di Torino, IT)

10:30-11:00 Coffee break

11:00-12:00 Session 5 – Broadband for everyone

Session chairman: Thoru Asami, University of Tokyo, Japan

- **S5.1 *Innovative broadband models for digital inclusion***
Supavadee Aramvith (Chulalongkorn University, TH), *Prasit Prapinmongkolkarn*, Akarapon Kongchanagul (National Telecommunications Commission, TH) Ekachai Phakdurong, Udomsak Luengkhan, Chatpetch Bunyakate (Thaicom PLC, TH)
- **S5.2 *Dynamic Resource Management for Downlink Multimedia Traffic in OFDMA Cellular Networks***
Dhananjay Kumar, Chellappan Chellappan, Srividhya Subramanian, Mariappan Pandian, Martheeswaran Mohandoss (Anna University, IN)
- **S5.3 *Optical Transport Networks: from all-optical to digital***
Virgilio Puglia (IT); Olga Zadedyurina (University of Trento, IT)

12:00-13:30 Lunch

13:30-14:30 Session 6 – Open and accessible services for digital inclusion

Session chairman: Mitsuji Matsumoto, Waseda University, Japan

- **S6.1 *iCanSee: A SIM Based Application for Digital Inclusion of the Visually Impaired Community***
Hannah Thinyane (Rhodes University, ZA); Mamello Thinyane (University of Fort Hare, ZA)
- **S6.2 *An Asterisk-based framework for e-learning using open protocols and open source software***
Mosiua Tsietzi, Zelalem Shibeshi, *Alfredo Terzoli*, George Wells (Rhodes University, ZA)
- **S6.3 *Innovations for Digital Inclusion: Leveraging Next Generation Networks for Human Development from the Bottom of the Pyramid***
Walter Brown (Monash South Africa, ZA). Presenter: *Hannah Thinyane*

(10 minutes in between sessions)

* Nominees for the three best paper awards.

14:40-15:40 Session 7 – Public policies, standards and digital inclusion

Session chairman: Victoria Sukenik, Secretary of Communications, Argentina

- **S7.1 Government Role in Information and Communications Technology Innovations**
Mostafa Hashem Sherif (AT&T, US); *DongBack Seo* (University of Groningen, NL)
- **S7.2 New model for cost of equity evaluation in emerging markets: the telecommunication sector in Brazil**
Tullio Bertini (National Telecommunications Agency, BR)
- **S7.3 ICT Standardization in China, the EU, and the US**
Kai Jakobs (RWTH Aachen University, DE)

15:40-16:10 Coffee break

16:10-16:40 Session 8 - Best paper awards and young author recognition

Session chairman: Mrs Alicia Alonso Becerra, Rector, José A. Echeverría Superior Polytechnic Institute, Cuba

- Presentation of best paper awards and young author recognition

16:40 – 17:30 Session 9 – Wrap-up

Session chairman: Mostafa Hashem Sherif, AT&T, USA

- Summary of the second Kaleidoscope conference (Panel with session chairs)

17:30 Closing

- Closing by Yoichi Maeda, Kaleidoscope General Chairman / NTT

POSTER SESSION PAPERS

P1: Lower the Frequency to Trigger Digital Inclusion? A Comparative Study Among Different VHF/UHF/SHF Solutions for the Implementation of Broadband Wireless Access, *Daniele Trincherò (Politecnico di Torino, IT); Riccardo Stefanelli, Federico Longobardi, Alessandro Galardini, Benedetta Fiorelli (iXem Labs, Politecnico di Torino, IT)*

P2: On the relevance of Open Wireless Sensors for NGN, *Marco Zennaro (KTH, IT); Herve' Ntareme (KTH, SE); Antoine Bagula, Gordon Inggs, Simon Scott (University of Cape Town, ZA)*

P3: Techno-Economical Comparison Between Gpon And Epon Networks, *Mauricio López Bonilla, Felipe Rudge Barbosa, Edson Moschim (State University of Campinas, BR)*

P4: A demonstrative link design of RoFSO and its Optimum performance - Indoor short range experiment and a new model of optical scintillation, *Takeshi Higashino, Katsutoshi Tsukamoto, Shozo Komaki (Osaka University, JP); Kamugisha Kazaura, Kazuhiko Wakamori, Mitsuji Matsumoto (Waseda University, JP)*

P5: Strategies for using international domain standards within a national context: the case of the Dutch temporary staffing industry, *Erwin Folmer (University of Twente, NL); Jack Verhoosel, Michael van Bekkum (TNO-ICT, NL)*

P6: Application of emerging wireless technologies for videoconference and telehealth in rural migrant communities in Oaxaca, Mexico, *Arturo Serrano Santoyo, Alvaro Armenta (CICESE, MX)*

P7: Digital Inclusion and Cyberart: the case of the project PROEJA Transiarte Tube, *Lucio Teles, Aline Zim (University of Brasília, BR)*

P8: A Design of XML Schema for Information Presentation System using Augmented Reality in New Generation Network Management, *Kei Wada, Yoshihiro Kawahara, Tohru Asami (The University of Tokyo, JP)*

P9: Feasibility study and implementation by means of a pilot plan of a system of transmission of medical images for the diagnosis of patients between general doctors and medical specialists, *Juan Bernal, Karen Espitia (Universidad Distrital Francisco Jose de Caldas, CO)*

P10: Policy-based Charging and High Precision Control for Converged Multi-gigabit IP Networks, *Taesang Choi, Sangsik Yoon, Sangwan Kim, Dongwon Kang, Joonkyung Lee (Electronic and Telecommunications Research Institute, KR)*

P11: Digital Inclusion through Localism, *Paul Plantinga (Monash University, ZA)*

P12: Digital inclusion opportunities in the telecommunications sector through NGN and Open Source tools: the Open IMS core experience, *Alberto Diez Albaladejo, Peter Weik, Dragos Vingarzan, Thomas Magedanz (Fraunhofer FOKUS, DE)*