



December 21-23, 2015

Islamabad, Pakistan



12th International Conference on 'High-capacity Optical Networks and Enabling/Emerging Technologies'



Technically co-sponsored by IEEE

Theme: "ICT, Photonics, Energy, and Big-data"

Hosted by and co-Organized by:

NUST-SEEDS, Islamabad, Pakistan

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University of North Carolina Charlotte, NC, USA

***Vision:** To bring together professionals and practitioners from academia, industry and government from around the world, with an objective to share knowledge and experience in the field of Energy, Photonics and Information and Communication Technologies with emerging technologies for global partnerships and collaborations, aiding economic growth to support peace and prosperity in the world. URL: <http://honet-ict.org>*

Call for Papers

General Information

HONET has evolved over a decade as conference that caters to various areas in Information and Communication Technologies (ICT) i.e., ICT-Services, Systems, e-Applications, and enablers of technology. HONET' 2015 has **5GTecnologies and Applications** as thematic focus and is therefore envisioned to cover various areas of **ICT** ranging from physical layer to networking and e-applications. Consistent with the celebration of **IYL' 2015** (International Year of Light) the **Photonics** tracks will span Lasers and LEDs from combinations to lighting, displays and light-based applications in emerging 'integrated photonics'. The **Energy** tracks will cover efficient energy production/saving technologies and harvesting renewable resources and intelligent monitoring based on smart microgrids. The rapidly emerging area of **Big-data** will include data transport, storage, cloud computing and data-analytics as pertains to various sectors of industry and society from education to e-healthcare. The expanded scope for the HONET International Conference will cover R&D topics ranging from new materials and device technologies to intelligent systems consisting of communication networks, cyber-security, e-applications and social networks.

Global Information and Communication Technologies (ICT) networks enable the *high-speed internet* by utilizing various photonic- and RF wireless technologies and networks spanning millions of fiber-optic links over the vast landscape and numerous satellites hovering over our planet. This technology base is the workhorse for ICT from the architectural, security, signal transport and application perspectives. *Photonic, Optoelectronic, and Wireless* modes of communication complement each other and enable

various communication technologies that are now the life-lines of our increasingly interconnected world. These are the disciplines that have emerged from *the fundamental electromagnetic phenomena and light-matter interaction and are the enablers of numerous engineering applications*. The foundations are materials and devices forming “integrated-photonics” for electromagnetic-wave generation, propagation, and detection. In both RF and optical regimes semiconductors and optical materials are utilized in the form of nano- and meta-materials. Process advances in micro/nano-fabrication of photonics devices, components, and functional modules and sub-assemblies enable the rapid progress in these technical areas.

The 12th International Conference [<http://honet-ict.org>] will be hosted by NUST School of Electrical Engineering & Computer Sciences. HONET has its expanded scope to also include various symposia serving scientific, technical and commercial sectors from different regions with a broad global participation. It will cover multiple tracks in various communication disciplines, e-applications, Photonics, Energy and Big-data & Cloud Computing. Among several sessions it would include photonics for energy harvesting, smart grids, internet of things, cloud computing, global e-applications, communications, network-enabled sensors, signal processing, audio, image and video processing, network security and forensic, data compression, various nanophotonics for energy-harvesting devices and materials. HONET will include an Industry Expo as well as workshops/tutorials and specialized short courses. HONET’ 2015 will span over three days of technical presentations as well as Industry Exhibits/Expo. Keynote addresses and various plenary sessions will set the theme and reinforce the overall objectives. The years HONET thematic focus is the “Information and Communications Technologies” (ICT). HONET has also a broader appeal of “Emerging/Enabling Technologies”, in addition to various communications and networking areas, it covers photonics and other complementary communication technologies as well as optics and nanotechnologies in the environmental arena as well as medicine and information processing. More information and updates are available at: <http://honet-ict.org>

PAPERS

Authors are invited to submit *R&D and concept papers* presenting original research work related to the practice and theory related to the scope of “HONET-ICT. Extended abstracts and Students’ poster-papers consistent with the topics and scope are also welcomed. Related proposals for workshops and Tutorials will be considered as well. All submissions must describe original and pertinent research, development, and future vision and must not be submitted in parallel at another conference. The topics of interest include, but are not limited to the following:

5G Technologies and Applications	Current Trends in ICT Networks
Wireless/Mobile Access /Mobile Web Access	Internet Mobility, 5 G Services and beyond LTE
Next Gen Wireless-systems/Mobile Internet	Context & Location-aware Services, Protocols, and Apps
Ubiquitous/Wireless Applications and test-beds	Location based services (LBS) and Network Security
Photonics for Smart Grids and Networks	Internet of Things
Intelligent Monitoring based Smart Grids	Social Networks and Green ICT
Nano- /Meta-materials for Intelligent Devices	Cloud computing / Metro/Optical access /storage networks
Micro/Nano Fab of Active and Passive Photonics	Demand Response and Cost Dynamics
Lasers, Solar Cells, and LEDs	MicroGrid Analytics and Management
Communication Networks -Enabling the Smart Grids	Audio, Image and Video Processing
Communications and Signal Processing	Network Security and Forensic
Data Compression and Storage	Big-Data Analytics
Network Virtualization	Software Defined Networks / Virtual Network Management

These topics should be discussed in terms of research findings, concepts, state-of-the-art, standards, implementations, developments, field trials/experiments, educational goals and new applications. Submitted or substantially similar papers must not be under review currently for any other publication.

The received papers will be peer reviewed using “IEEE standards and criteria.” *Authors should note that only the accepted and presented papers will be eligible for final proceedings.* Papers accepted but not presented will be omitted from all proceedings and publication on IEEE Xplore.

Paper submissions will be handled via EasyChair™:

<http://www.easychair.org/conferences/?conf=honet2015>

Instructions for Authors

All paper submissions will be handled electronically through **EasyChair™**. Authors should prepare PDF-compliant version of their papers not exceeding five (5) double-column pages. Extended Abstracts and Poster Summaries could be up to 2 pages with double column format. Paper format/template with font sizes and the guidelines, and copyright form are available on the HONET homepage. The first page of the paper must contain an informative title, abstract, and name(s) of author(s) with respective affiliations, postal address(es), phone/fax numbers, and email address(es). The corresponding author must be clearly identified. Additionally, five keywords relevant to the research paper or thematic areas must also be listed (as per template). *All submissions will be peer-reviewed, and the accepted and presented papers will be published on IEEE Xplore Digital Library.*

All HONET papers must be submitted at <http://www.easychair.org/conferences/?conf=honet2015> . All deadlines listed therein are 11:59 pm US Eastern Daylight Time, GMT+4.

For detailed author instructions please visit www.honet-ict.org.

Important Dates

Full Paper Due:	September 20, 2015 October 11, 2015
Acceptance Notification:	October 30, 2015
Camera Ready Due:	November 07, 2015
Registration Deadline:	November 15, 2015
Program Available:	November 23, 2015

