IEEE ANTS 2015
Ninth IEEE International Conference on Advanced Networks and
Telecommunication Systems (ANTS)
Sponsored by IEEE Communications Society

December 15-18, 2015
Indian Statistical Institute,
203 B. T. Road,
Kolkata 700108, India

Call for Papers/Tutorials/PhD Forum Abstracts

Important Dates and Links:

- Paper submission deadline: **July 1, 2015**
- Tutorial, Panel, Exhibits/Demos, PhD Forum Submission deadline: **August 31, 2015**
- Notification of acceptance: **Sept. 15, 2015**
- Conference dates: **Dec. 15 - 18, 2015**
- Workshop link: **Dec. 19 - 20, 2015**
- Paper submission link: http://edas.info/N19879

About IEEE ANTS

ANTS is the premier IEEE conference on networking and telecommunications topics that is held in India every year and is the only conference financially sponsored by IEEE Communications Society. It attracts paper submissions and attendance from around the world. One of the distinguishing goals of IEEE ANTS is to promote an intense dialogue between academia and industry to bridge the gap between academic research, industry initiatives, and governmental policies. This is fostered through panel discussions, keynotes, invited talks and industry exhibits where academia is exposed to state-of-the-practice and results from trials and interoperability experiments. The industry in turn benefits by exposure to leading-edge research in networking as well as the opportunity to communicate with academic researchers regarding practical problems that require further research.

Scope

We are witnessing a paradigm shift in networking where the end-user demands and cloud-computing-based service paradigms are influencing evolving network architectures, system designs, and service delivery models, around the concept of network function virtualization (NFV) and software defined networking (SDN). Over-the-Top (OTT) players, consumer electronic vendors, IT providers, and third party software developers have entered the service-delivery value chain fostering an open environment which is challenging the hegemony of traditional network operators. IT & telecom, hitherto distinct domains, are now spoken of as ICT (Information and Communications Technologies) symbolizing the close inter-working of these disciplines in the emerging service delivery architectures. Different vertical industries such as energy utilities, health-care, automotive, banking & finance, retail, media entertainment are leveraging network technologies in innovative ways to offer branded services directly or in partnership with network providers. Machine-to-Machine (M2M) and Internet of Things (IoT) have opened new vistas for communications and networking technologies.

IEEE ANTS 2015 will feature a rich industry program comprising of keynote addresses, invited talks and panel discussions to complement a high-quality technical program of peer-reviewed papers, tutorials, and Ph.D. student forum presentations, bringing together experts from industry, academia and government. The conference will provide an exciting meeting ground for the confluence and exchange of ideas among participants from all over the world.

IEEE ANTS 2015 will feature both long (6-page) and short (3-page) papers in three broad areas. Authors are strongly encouraged to submit original, high-quality research papers addressing topics of interest to both industry and academia, focusing on (but not limited to) the following thrust areas:

1. Wireline Networks (including topics such as):

    Cloud and data center networks
    Network function virtualization
    Software Defined Networks
    Core network architectures and protocols
    Metro and access networks
    Optical communications and networking
    Architectures for high-performance routers and switches
    Storage networks
    Green communication networks
    High-Performance computing networks
    Network architectures for the Smart Grid
    Power line communication networks
    Disaster-aware and survivable networking

2. Wireless Networks (including topics such as):

    Spectrum management
    Mobile ad hoc networks
    Wireless mesh networks
    Cellular and broadband wireless networks (LTE, LTE-A, 5G, etc.)
    Cognitive radio networks
    Convergence of optical and wireless access networks
    Converged cloud radio access networks
    Green wireless communication networks
    Machine-to-Machine (M2M) Communications
    Mobile backhaul networks
    Next generation mobile/wireless networks
    Networks for Internet-of-Things (IoT)
    Optical wireless (free space optics) networks
    Satellite communication networks
    Sensor networks and embedded systems
    Smart grid communication networks
    Vehicular ad hoc networks
    White space networks
    Wireless body area networks
    Wireless local and personal area networks

3. Network Applications and related (including topics such as):

Cyber-physical systems and networks
Big data and e-Science applications
Data and file sharing
Embedded network analytics
Energy-efficient green networking and sustainability
IPTV, video-on-demand, tele-presence, collaboration tools
M-Health, e-Health, and smart health-care
Middleware services
Network virtualization
Online social networking
Peer-to-peer networks
Security, trust and privacy in networks
Smartphone networked apps
Standardization
Telecom service assurance
Triple-play architectures and applications

Submission Guidelines

(1) TECHNICAL PAPERS: Authors must submit their papers using EDAS (http://edas.info/N19879) on or before July 1, 2015. All papers will be reviewed for technical content and scope by a technical program committee. All accepted and presented papers would be digitally archived through IEEEXplore. The page limits are SIX pages for the long paper track and THREE pages for the short paper track. Papers should be in PDF format, two columns, font size 10 or greater and compliant with other IEEE ANTS manuscript guidelines. Submitted papers must be unpublished and not currently under review for any other publication. Authors of accepted papers must sign an IEEE copyright release form and also present their paper at the conference for the paper to be included in IEEE Xplore. A subset of the accepted papers will be considered for special issues of journals including the Springer Photonic Network Communications Journal. A small number of papers may be accepted for poster presentation instead of oral presentation.

(2) TUTORIALS: Proposals are solicited from domain experts to cover current topics directly relevant to the conference such as (but not limited to): Cloud and Data Center Networks including SDN and NFV, IPTV, Video-on-Demand, Smartphone Networked Apps, Information Centric Networking, Wireless Networks, Optical Networks, etc. Proposals must provide an in-depth survey of a chosen topic with the option of describing a particular piece of work in detail and a meaningful summary of open issues in the topic. Proposed tutorials should be comprehensive, informative, and appealing to the attendees. Each tutorial will be for 3.5 hours with a half-hour break. Tutorial instructors must make a commitment to prepare the tutorial materials (e.g., slides) reflecting high quality standards. All tutorials will be featured prominently in the conference program. Each tutorial proposal should have: (i) A single page abstract that includes: Title of the tutorial, Name and affiliation and a short biography of the instructor(s), Description of the tutorial scope, Intended audience; and (ii) A description at most two pages long that includes: Main topics (preferably with some description) to be covered during the tutorial; if relevant, a description of real-world systems, experiences and/or case studies, details of the new knowledge/perspectives gained by the audience attending the tutorial. Tutorial proposals should be directly EMAILED to the Tutorial Co-Chairs (sxmohan@ualr.edu, adrish@iitk.ac.in) by August 31, 2015.

(3) PANELS: Panel proposals should contain the Panel Title, Scope, Lead Panelist and a list of 3-4 Panel Members; proposals should be directly EMAILED to the Panel Co-Chairs (mutaneja@cisco.com, Pamela.kumar@hp.com) by August 31, 2015.

(4) Ph.D. STUDENT FORUM: Original submissions are invited for ANTS 2015 PhD forum in the broad areas of wireline networks, wireless networks, and network applications. Authors must submit a one-page extended abstract using EDAS (http://edas.info/N19879) on or before August 31, 2015. The PhD forum provides an opportunity for research students to showcase their original yet incomplete 'work-in-progress.' Apart from the TPC reviews, presentations would allow authors an opportunity to have detailed discussions with the conference attendees and obtain feedback on their work. The forum also encourages authors to hold live and/or interactive demonstrations as part of their presentations. The abstract should describe the main motivation and results in sufficient detail to allow the reviewers to assess the potential contribution of the work. The abstracts should be authored by active PhD Students only and should be at most one page long in two-column format. A set of 5-7 keywords should accompany the abstract. The abstracts will not be archived, and the authors would not need to sign the IEEE copyright form. Abstracts will be reviewed by the TPC and only selected work can be presented in the conference. However, the selected abstracts will not appear in IEEE Xplore. Submitted abstracts should be unpublished and not under review for any other publication and if selected the authors must present their work at the conference.

(5) EXHIBIT/DEMOS: IEEE ANTS 2015 will include exhibit/demonstration sessions that shall provide a forum to present and discuss: industry/academia demonstrations of new products, applications and techniques, practical implementations; industrial and commercial developments, research test-beds and implementations. A 3-page extended abstract describing the main contributions of the exhibits/demo and the merits of the proposed ideas must be submitted. Demonstration submissions should include the space, power, network connectivity requirements and/or any other equipment-specific requirements. The documents must contain the authors' names, affiliations, contact information and the designated corresponding author. Proposals will be evaluated mainly based on their potential to stimulate interesting

discussions, exchange of ideas and promote collaborations. The exhibit/demos abstracts are to be submitted through EDAS (http://edas.info/N19879) by August 31, 2015.

IEEE and IEEE Communications Society Policies:

All IEEE ANTS 2015 technical papers must be associated with an author registration at the FULL rate. For authors presenting multiple papers, one FULL registration is valid for up to three papers. IEEE reserves the right to exclude a paper from distribution after the conference (e.g., removal from IEEE Xplore) if the paper is not presented at the conference.

Committees

General Co-Chairs:

Bhabani P. Sinha, ISI, Kolkata, India
Deepak Kataria, IP Junction Inc., USA
Debasish Datta, IIT Kharagpur, India

General Vice-Chair:

Vinod Vokkarane, Univ. of Massachusetts, Lowell, USA

TPC Co-Chairs:

Nabanita Das, ISI, Kolkata, India
Bheemarjuna Reddy Tamma, IIT Hyderabad, India
Sudip Misra, IIT Kharagpur, India

Panel Co-Chairs:

Pamela Kumar, HP, India
Mukesh Taneja, Cisco

Tutorial Co-Chairs:

Seshadri Mohan, Univ of Arkansas at Little Rock, USA
Adrish Banerjee, IIT Kanpur, India

Demo/Exhibit Co-Chair:

Utpal Garain, ISI, Kolkata, India
Himadri S. Paul, TCS Kolkata

PhD Student Forum Co-Chairs:

Krishnendu Mukhopadhyaya, ISI, Kolkata, India
Goutam Chakraborty, Iwate Prefectural Univ., Japan

Publication Co-Chairs:

Goutam Das, IIT Kharagpur
Debarati Sen, IIT Kharagpur

Publicity Co-Chairs:

Mohsen Guizani, Qatar University, Qatar
Priyadip Ray, IIT Kharagpur
Rudra Dutta, NCSU, USA

Website Co-Chairs:

Sandip Chakraborty, IIT Kharagpur
Abhishek Gupta, UC Davis, USA

Industry Co-Chairs:

Venky Krishnaswamy, Avaya Labs
Sanjoy Paul, Accenture Technology Labs India