

Self Organizing Networks (SON)

Subtitle: Within an End-to-End LTE / LTE-Advanced Roadmap

Course Format:

Online Course

Date:

Thu, May 9, 2013 - 9:00am - 4:30pm EDT

Location: Online

Price:

\$250 IEEE / ComSoc member

\$300 non-member

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The wireless technology paradigms within LTE / LTE-Advanced Roadmap in particular, and a multi-level, multi-technology environment in general include and rely on Self Organizing Networks (SON). This is a new era with a series of mechanisms both for pre-operational concerns such as planning, deployment and network configuration and operational needs such as service/availability optimization, reporting and healing. SON is in line with the end to end technology paradigm evolution as networks, operations, and service environments are becoming more dynamic, converged / hybrid, adaptive, and increasingly reconfigurable and knowledge-based in real-time.

This course provides an understanding of:

- An end- to- end view of the technology evolution with LTE, LTE-Advanced, and a multi-technology, heterogeneous, multi-band, multi-cell, and increasingly virtualized and cloud-like environment
- Self Organizing Networks
- Different technologies for Self-Configuration, Self-Optimization and Self-Healing such as: automatic neighbor relations (ANR); load balancing, capacity/coverage and LTE parameter optimization; minimization of drive test; energy efficiency; and others.

In this context, the key requirements are outlined for Next-Generation Mobile Networks (originating from an initiative co-led by the lecturer) which also became input to standardization, the 3GPP standards, and the general ecosystem availability and roadmap. The role of SON in

addressing tremendous traffic growth, in service / experience optimization, and in cost/energy efficiency are addressed. The realization of SON in terms of availability, potential phases, and a multi-vendor interoperable roadmap is discussed. Concluding the course, students are presented with information on what is required and what is to be expected in coming years, within the end to end multi-technology, reconfigurable, efficient and increasingly knowledge-based and virtualized network/technology roadmap.

System Requirements:

Windows support

- Intel Core2 Duo CPU 2.XX GHz or AMD processor. (2 GB of RAM recommended)
- JavaScript and Cookies enabled
- Active X enabled and unblocked for Microsoft Internet Explorer (recommended)
- Java 6.0 or above

Mac support

- Intel processor (512 MB of RAM or more recommended)
- JavaScript and Cookies enabled
- Plug-ins enabled in Safari
- Java 6.0 or above
- Kernel: 2.6 or later
- X Lib: X11R6 or later compatible
- C++ Lib: libstdc++ 6
- Desktop Environment, XFce 4.0 or later, KDE, Ximian, Gnome
- GDK/GTK. version: 2.0 or later
- Glib: 2.0 or later
- Sun Java 1.5 or later

Linux support

- Kernel: 2.6 or later
- X Lib: X11R6 or later compatible
- C++ Lib: libstdc++ 6
- Desktop Environment, XFce 4.0 or later, KDE, Ximian, Gnome
- GDK/GTK. version: 2.0 or later
- Glib: 2.0 or later
- Sun Java 1.5 or later

Instructors:

[Javan Erfanian](#)

Course Content:

This course focuses on:

- What Self Organizing Networks (SON) are and identifies its drivers
- SON Technologies: Self-Configuration, Self-Optimization, Self-Healing, Self-X
- Development of SON Requirements & Standardization (NGMN, 3GPP)
- SON in the End-to-End Technology Paradigm Evolution
(Dynamic, Seamless, Reconfigurable, Virtualized / Cloud-Based)
- SON Reality (Ecosystem Maturity, Realizations, What to Expect Next)

Course Materials:

A copy of the instructor's PowerPoint slides will be provided in hard copy. Earn 0.6 IEEE Continuing Education Units for participating.

COURSE CANCELLATION and REFUND POLICY

Requests for online course cancellations must be received 7 business days prior to the course date for a full refund. Once course materials have been shipped to a course participant, if a cancellation request is made, only a 50% refund can be issued and transferring the seat to a future course date cannot be accommodated. Refunds for in-person courses can be issued up to 5 days prior to the course.

Clarification on Course Materials and Delivery.

A copy of the instructor's PowerPoint slide presentation is provided via post to all online course registrants. For in-person courses the handout is distributed on site. The handout is provided as a courtesy and is made available for the course participants future reference. For registrants who purchase a seat in a course less than 7 business days prior to the course being taught, there is no guarantee that the course materials will arrive by the date the course is taught online. Having a copy of the slides in hand does not preclude a registrants ability to participate in the live teaching of the course or their ability to review the recorded session.

Registration Link: <https://register.comsoc.org/content/self-organizing-networks-may-2013>

Registration Note:

Register by 2 May to guarantee delivery of your course handout in time for the course.

Registration Ends:

Wed, 05/08/2013 - 17:00

General Contact: m.catis@comsoc.org

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Source URL: <http://www.comsoc.org/training/training-calendar/self-organizing-networks-son>