

## Call for Chapter Proposals

You are cordially invited to propose a chapter proposal for the Book on:

### **Green IT: Technologies and Applications**

to be published by **Springer-Verlag** and sponsored by **KSEA**.

#### **SCOPE**

As the world's economic activities ever expand, the energy comes to the fore to the question of the sustainable growth. A variety of environmentally responsible energy solutions have emerged recently, addressing the issues of energy conservation and renewable sources. As we are ushered into information era, energy expenditure to support IT becomes an acute issue, giving rise to the subject of the proposed book, *Green IT*. IT sector is unique in that it is part of the problem but at the same time a key to the solutions. Quantum leaps in energy saving in many sectors are often attributed to innovative applications of IT technology. Technologies of Green IT can include (i) energy efficient communications and networking (Green Communications), (ii) virtualization of computing resources and related technologies (Green Computing), (iii) regulations and standardization, and (iv) Green IT applications such as Smart Grid and Cyber Physical Systems (CPS).

Recently, there have been heightened research and development efforts in Green IT area, reporting technical and policy issues and solutions through conferences, workshops, and journals. Meanwhile, standard bodies such as IEEE are already developing specifications for energy efficient protocols. With substantial R& D efforts reported in different publishing venues, it is timely and desirable to compile those findings into a book for the interested readers like undergraduate/graduate students, researchers to offer a comprehensive view on the Green IT efforts.

#### **TOPICS**

Subject areas and specific topics for the proposed book include, but are not limited to, the following

##### **Part I: Green Communications**

- Architecture of Green Communications
- Energy efficient PHY, MAC, Routing, Transport, and Application Layer
- Energy efficient Internet architecture,
- Energy efficient home and enterprise networking
- Network-wide crosslayer optimization for minimal energy consumption

- Network load balance and smart information storage
- Measurement technology
- Novel network concepts and architectures lowering the overall footprint of ICT
- Information theory on energy efficiency
- Energy efficient cognitive, cooperative and reconfigurable networks
- Assessment of the footprint of individual communication devices
- Smart Grid communications
- Security for energy efficient networks
- Deployment, trial experience

### **Part II: Green Computing**

- Energy Efficient Data centre
- Energy Efficient Cloud Computing
- Power supply and management
- Energy efficient Smart Storage
- Server Consolidation

### **Part III: Regulations and Standards**

- Government regulatory policy
- IEEE, others (IEC, etc)

### **Part IV: Innovative Applications**

- Smart Grid Technology
- Applications in BioScience and Technology
- Applications in Cyber Physical Systems
- Applications in Energy and Environmental Technology
- Other Areas

### **IMPORTANT DATES**

- Proposal Submission: November 15, 2010
- Notification of Proposal Acceptance: November 30, 2010
- Full Chapter Submission: Feb. 28, 2011

- Final Review: March 20, 2011
- Publication: June 20, 2011

## **SUBMISSION GUIDELINES**

A chapter proposal should include a 1-page chapter outline, the number of pages of the final manuscript, and a short bio including detailed contact information. Please submit the chapter proposal (in Word or PDF) or any inquiry to editors via email:

Dr. Jae H. Kim

Boeing

Email: [Jae.h.kim@boeing.com](mailto:Jae.h.kim@boeing.com)

Dr. Myung J. Lee

CUNY

Email: [lee@ccny.cuny.edu](mailto:lee@ccny.cuny.edu)