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## **I<sup>2</sup>R RESEARCH SCIENTIST WINS PRESTIGIOUS 6<sup>TH</sup> IEEE COMSOC ASIA-PACIFIC BEST YOUNG RESEARCHER AWARD**

***Dr Zhang Rui is recognised for his active participation in ComSoc publications and conference activities for the past 3 years.***

1. **Singapore, 7<sup>th</sup> December 2011** – Dr. Zhang Rui, a research scientist at A\*STAR's Institute for Infocomm Research (I<sup>2</sup>R), has won the "6<sup>th</sup> IEEE ComSoc Asia-Pacific Best Young Researcher Award" for his outstanding participation and active involvement in IEEE ComSoc publications and conferences in the last 3 years.
2. The Institute of Electrical and Electronics Engineers Communications Society (IEEE ComSoc) consists of a group of industry professionals with a common interest in boosting all communications technologies. The Asia-Pacific board represents the society in the Asia-Pacific region. It links ComSoc's technical and information services to its members in the region and promotes their participation in activities organized by the society.
3. Since joining I<sup>2</sup>R in 2007, Dr. Zhang Rui has conducted extensive research in various aspects of wireless communications. He has worked on several frontier research areas, including multi-user communication systems with multi-antenna transmitters and/or receivers (multi-user MIMO), cognitive radio and cooperative communication. Currently, Dr. Zhang is continuing his research in these areas, exploring new promising areas of wireless communications research related to energy issues, such as energy efficiency, energy harvesting and smart grid.

4. Cognitive Beamforming, an innovative technology invented by Dr. Zhang together with his team members at I<sup>2</sup>R, is now recognized worldwide as a promising solution to resolve the classic “interference” problem in wireless communications. This invention is built upon the celebrated smart-antenna technology, while embedding it with the new capabilities of environmental learning and cognitive adaptation. Substantial industrial R&D activities have been driven by this new technology, towards implementing the next generation “cognitive radio”-based wireless communications systems.

5. A world-renowned expert in applying convex optimisation methods to solve complex design and performance problems in wireless communication systems, Dr. Zhang Rui has published over 100 international journals and conference papers. His research has resulted in high scientific impacts, with three of his recently published papers being classified as the Highly Cited Papers by Thomson Reuter’s ISI Essential Science Indicator, a comprehensive compilation of science performance statistics and science trends data from Thomson Scientific databases.

6. Professor Lye Kin Mun, Executive Director of I<sup>2</sup>R said: “My heartiest congratulations to Dr. Zhang for his win of this prestigious award! I<sup>2</sup>R is proud of his achievements in improving the wireless communications field. The recognition of our young researchers’ contributions in their fields of research, locally or globally, is indeed very fulfilling.”

7. The IEEE ComSoc Asia-Pacific Young Researcher Award is sponsored by IEEE Asia Pacific Board. This award honours researchers who are actively involved in ComSoc publications and conference activities over the last 3 years. Applicants for the award must be members from the Asia-Pacific region and be under 35 years old. The best candidate of the year is selected for the Best Young Researcher Award.

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### **About Institute for Infocomm Research**

The Institute for Infocomm Research (I<sup>2</sup>R pronounced as i-squared-r) is a member of the Agency for Science, Technology and Research (A\*STAR) family. Established in 2002, our mission is to be the globally preferred source of innovations in 'Interactive Secured Information, Content and Services Anytime Anywhere' through research by passionate people dedicated to Singapore's economic success. I<sup>2</sup>R performs R&D in information, communications and media (ICM) technologies to develop holistic solutions across the ICM value chain. Our research capabilities are in information technology, wireless and optical communication networks, interactive and digital media, signal processing and computing. We seek to be the infocomm and media value creator that keeps Singapore ahead. For more information about I<sup>2</sup>R, please visit [www.i2r.a-star.edu.sg](http://www.i2r.a-star.edu.sg).

### **About the Agency for Science, Technology and Research (A\*STAR)**

The Agency for Science, Technology and Research (A\*STAR) is the lead agency for fostering world-class scientific research and talent for a vibrant knowledge-based and innovation-driven Singapore. A\*STAR oversees 14 biomedical sciences and physical sciences and engineering research institutes, and six consortia & centres, located in Biopolis and Fusionopolis as well as their immediate vicinity. A\*STAR supports Singapore's key economic clusters by providing intellectual, human and industrial capital to its partners in industry. It also supports extramural research in the universities, and with other local and international partners. For more information about A\*STAR, please visit [www.a-star.edu.sg](http://www.a-star.edu.sg).