

## An Introductory Editorial: Special Issue on Global Wireless Summit (GWS-2015)

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The last decade has been witnessing fastest developments in wireless communications and ICT technologies worldwide particularly new wireless based systems. The Wireless communications, besides providing the last mile access and the vital mobility, revolutionized the way we communicate, stay connected, learn and even entertained. Pioneering work and developments in communication systems, protocols and VLSI technology played a catalytic role in making a quick evolution possible and providing ubiquitous and seamless connectivity. The yet other area of ICT to revolutionize the communication which handle things including gadgets and machines is Internet of Things (IoT). These areas have been experiencing vibrant research and technology development activities. The Global Wireless Summit (GWS) was conceptualized in bringing together wireless media communication/personal communication, etc. The First GWS was successfully held in Princeton (USA), in 2013, followed by the Second one in Aalborg (Denmark), in 2014.

The 3rd in series of the Global Wireless Summit, the GWS-2015 organized with two major conferences namely 18th International Symposium on Wireless Personal Communications (WPMC) and 5th Wireless VITAE, which was held in Hyderabad (India) during December 13–16, 2015. The GWS-2015 was on the theme of ‘Democratizing Communications’ with focus on green and secure communication, wherein government, academia, industry and standardization bodies actively participated. In GWS-2015, more than 200 thoroughly reviewed papers were presented from all over the world, categorized under five groups namely Algorithms and Channel Estimation in Wireless Communications, Antenna

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and Circuit Design, Opportunistic Approaches in Communication Technologies, Special Interest, Vehicular and Mobile Ad hoc Networks and Wireless Sensor Networks.

The topics covered were Wireless Communications and Physical Layer; Internet of Things; Machine to Machine (M2M) Communications; Wireless Networks; Communications Services and Multimedia Applications; 5G; WLAN; WPAN; Radio Resource Management; and Optical Wireless; etc.

After the success of the Global Wireless Summit (GWS) 2015, held in Hyderabad (India) during December 12–16, 2015, a decision was taken to bring out a Special issue of selected high quality papers in an internationally reputed Journal, Wireless Personal Communications (WPC). As a follow up, 50+ high ranking papers were short-listed amongst the papers presented at GWS-15 and the authors were invited to submit the extended version of their papers for consideration of publication in a Special Issue. Out of the extended version of papers received, a bunch of papers (27) have been accepted for publication in the Special Issue of the International Journal of Wireless Personal Communications (WPC) on GWS-15.

Nonetheless, after the successful publication of first special issue, further decision was also taken to bring out another Special Issue on GWS-15 to include the missed high quality papers from different sessions of the GWS-15 conferences. With rigorous peer review processes, 28 papers were accepted for final publication in the second special issue of International Journal of Wireless Personal Communications (WPC) on GWS-15.

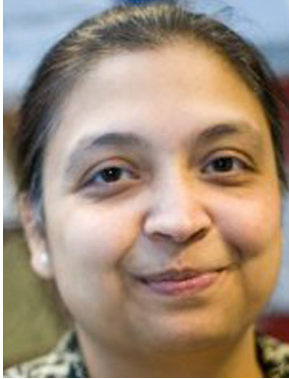
The authors were advised to maintain the quality and integrity with significant contributions and should not have any plagiarized content from any source, even from own work. We are sure that this Special Issue covering wide ranging topics on wireless communications and ICT will open new doors of knowledge.



**Dr. Ashok Chandra** is the former Wireless Adviser to the Government of India. In his responsibility as Wireless Adviser, he was associated with national spectrum management activities, including in spectrum planning and engineering, frequency assignment, frequency coordination, spectrum monitoring, policy regarding regulatory affairs for new technologies and related research & development activities, etc. From the spectrum management points of view, he played a key role in the auction of 2 G, 3 G and Broadband Wireless Access (BWA) spectrum. Dr. Chandra, an “Indian Engineering Services” officer did his Post graduate in Electronics, Ph.D. and Doctorate of Science (D.Sc.) in Radio Mobile Communications. He has worked as a Guest Scientist in various Technical Universities of Germany and Denmark. Chandra is having Technical Experience of over 35 years in the field of Radio Communications/Radio Spectrum Management sector. He has published over 30 research contributions in the fields of Wireless Communications. He has about 7 years of experience dealing with

Technical Education matters of Indian Institutes of Technology (IIT), Indian Institute of Science (IISc) etc. particularly their various research projects also in the areas of telematics/radio communications. He had played a key role in the establishment of new Indian Institutes of Technology, Indian Institute of Management and Indian Institutes of Information Technology. Dr. Chandra was instrumental in the implementation of “Technology Development Mission” scheme, under which one IIT/IISc was identified as a lead institution and two institutes as participating partners with the involvement of industry in each generic area. He has visited various technical Institutions and Universities namely Technical University of Aachen, Germany; Aalborg University, Denmark; Bremen University, Germany; and University of Lisbon, Portugal etc. and took several lectures in the area of radio mobile communications in these universities. He has chaired various Technical Sessions at the International Conferences. As the Project Director, he implemented a World Bank assisted Project in the Ministry of Communications and IT, Government of India on “National Radio Spectrum Management and Monitoring System”. The objectives of this system were automation of the process for Radio Frequency (RF) spectrum management and upgradation of radio

monitoring facilities, with the aim for optimal and efficient usages of scarce limited natural resource of RF spectrum. He served as a Vice-Chairman, Study Group 5 of International Telecommunications Union (ITU)-Radio Sector. He has represented India to a large number of ITU meetings including World Radio Conferences (WRC). He served as Councilor from Indian Administration in ITU Council. He organized Working Party 5 D of ITU R Study Group 5 meeting in India. He was TPC Executive Chair of Global Wireless Summit 2015.



**Dr. Neeli R. Prasad** is the Founder CEO of the SPA solutions-LLC, Mount View, California, USA. She is the former Research Head, CTIF, Aalborg University, Denmark and Director CTIF-USA. She is a security and wireless technology strategist, who through her career has been driving business and technology innovation, from incubation to prototyping to validation. She is Master of Science degree from Delft University, Netherlands and Ph.D. degree in Electrical and Electronic Engineering from University of Rome Tor Vergata, Italy. She has more than 250 publications and published two of the first books on WLAN. She is an IEEE senior member and an IEEE Communications Society Distinguished Lecturer. Dr. Prasad was the executive co-chair of IEEE GLOBECOM 2015. She has focus and the abilities to transform organizations and networking technologies to address changes in markets. She has made her way up the waves of secure communication technology by contributing to the most groundbreaking and commercial inventions. She has general management, leadership, and technical

skills, having worked for service providers and technology companies in various key leadership roles. She was leading a global team of 20+ researchers across multiple technical areas and projects in Japan, India, throughout Europe and USA. She has been involved in projects and plays a key role from concept to implementation to standardization. Her strong commitment to operational excellence, innovative approach to business and technological problems, and aptitude for partnering cross-functionally across the industry have reshaped and elevated her role as project coordinator making her the preferred partner in multinational and European Commission project consortium. Her notable accomplishments include enhancing the technology of multinationals including CISCO, HUAWEI, NIKSUN, Nokia-Siemens and NICT, defining the reference framework for Future Internet Assembly and being one of the early key contributors to Internet of Things. She is also expert member of governmental working groups and cross continental forums. Previously, she has served as chief system/network architect on large-scale projects from both the network operator and vendor looking across the entire product and solution portfolio covering security, wireless, mobility, Internet of Things, Machine-to-Machine, eHealth, smart cities and cloud technologies. She was one of the key contributors to the commercialization of WLAN for which she has published two books.



**Dr. Dnyaneshwar S. Mantri** is graduated in Electronics Engineering from Walchand Institute of Technology, Solapur (MS) India in 1992 and received Masters from Shivaji University in 2006. He has awarded Ph.D. in Wireless Communication at Center for TeleInfrastruktur (CTIF), Aalborg University, Denmark in 2017. He has teaching experience of 24 years at under and post graduate levels. From 1993 to 2006 he was working as a lecturer in different institutes [MCE Nilanga, MGM Nanded, and STB College of Engg. Tuljapur (MS) India]. From 2006 he is associated with Sinhgad Institute of Technology, Lonavala, Pune and presently working as Associate Professor in Department of Electronics and Telecommunication Engineering. He is member of IEEE, Life Member of ISTE and IETE. He has written three books and published more than 15 papers in indexed and reputed Journals (Springer, Elsevier, and IEEE etc.) and more than 19 papers in IEEE conference s. He is reviewer of international journals (Wireless Personal Communication, Springer, Elsevier, IEEE, Communication

society, MDPI etc.) and conferences organized by IEEE. He worked as TPC member for various IEEE conferences and also organized IEEE conference GCWCN2014. He worked on various committees at University and College. His research interests are in Adhoc Networks, Wireless Sensor Networks, Wireless Communications VANET, Embedded Security.