

R. Venkatesha Prasad

Asst. Professor, IEEE Distinguished Lecturer, FIETE
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Passport: Indian

Profile

Dr. R Venkatesha Prasad is a senior assistant professor at Embedded Software group of Delft University of Technology since 2013. His research interests are in the area of Tactile Internet, Internet of Things (IoT), Cyber Physical Systems (CPS), Energy Harvesting and 60 GHz millimeter wave networks. He has supervised 18 PhD students (15 graduated, 3 ongoing) and more than 40 MSc students (36 graduated). He has participated in several European and Dutch national projects in the area of IoTs, 60 GHz communications, Smart-energy systems, Personal networks and Cognitive Radios. He has (co)authored more than 200 publications in the peer-reviewed international transactions/journals and conferences. He was responsible for the signing of **MoU between IISc-TU Delft** and he is anchoring **ISRO-TU Delft cooperation**. In 2015, he received his **4TU University Teaching Qualification diploma**. He has served on the editorial board of many international journals and magazines including IEEE Transaction on Green Communication Networks, IEEE Communication Magazine, IEEE Surveys and Tutorials and Elsevier-Communication Networks. He is a regular reviewer for many prestigious journals and conferences and serves as the TPC member for various conferences. He is also contributing to the academic community by leading many IEEE activities, such as memberships of standards boards, leading technical committees, etc. He is nominated as the vice-chair of IEEE Tactile Internet standardization group. For his excellent research contributions, he is selected as the **IEEE ComSoc Distinguished Lecturer** on Internet of Things for the period 2016-2018. From 2005-12 he was a senior researcher and adjunct faculty at TU Delft working on the EU FP7 Magnet (and Beyond) Project and the Dutch project PNP-2008 on **Personal Networks (PNs)**, Future Home Networks, etc. He completed his **PhD from IISc, Bangalore, India in 2003**. During his PhD research, a scalable **VoIP conferencing platform** was designed. Many new ideas including a conjecture were formulated and tested by developing an application suite based on his research findings. The work involved an understanding of network protocols, application design and human-computer interface. **His thesis work lead to a startup venture, Esqube Communication Solutions**. He was leading a team of engineers developing many real-time applications including bridging anonymous VoIP calls called Click-to-Talk for Ebay.com. While at Esqube, **eight patent** applications and three PCT applications were filed along with his colleagues. Esqube was selected as top 100 IT innovators in India in 2006 by NASSCOM and top 100 in promising companies in Asia by RedHerring in 2008. He is a *senior member* of IEEE and ACM.

Research Interests

His research interests cover many aspects of wireless networking. In particular: **Internet of Things, Cyber Physical Systems, 5G Networks, Cognitive Radio, VoIP** and real-time Applications, Communication networks, Performance modeling, Energy efficiency. *Recently he is working on Nano-Satellites swarms and the Moon rovers.*

Academic Experience

Mar 2013 - *Present* Senior Asst. Prof., ES, TU Delft, The Netherlands. (Part time)
Mar 2012 - 2013 Tenured Asst. Prof., ES, TU Delft, The Netherlands. (Part time)
Mar 2008 - Mar 2012 Permanent Faculty, WMC, TU Delft, The Netherlands. (Part time)
Mar 2005 - Mar 2008 Postdoc/Senior Researcher, WMC, TU Delft, The Netherlands. (Part time)
Apr 1992 - Jul 1992 Lecturer, MCE, Hassan, affiliated to Mysore University, India.

Publications (H-Index 28)

Journals	46	IEEE Standards	9
Peer Reviewed Conferences	145	Book Review and Invited Articles	7
Peer Reviewed Book Chapters	8	Patent Applications	8 (+3 PCT)

Supervision of Students

Post-doctorates	4	PhD Students graduated (current)	15(3)
MSc Students	36	Bachelor of Engineering	12

Other Academic Activities

Successful Project Acquisitions	10	Editorial Board of Journals (Editor, Exe. Editor)	6
Organizing Technical Workshops	30	Organizing Committees, Program Committee chair	30
Conference TPC memberships	90	Reviewer Transactions/Journals & Conferences	83
Tutorials and Invited Talks	11	Membership of Technical Committees/Associations	5

Industry Experience

Jun 2006 - Apr 2009	Senior Design Consultant (Part time), ESQUBE, Bangalore, India
Nov 2003 - Mar 2005	Design Consultant (Full time), ESQUBE, Bangalore, India.
Apr 1999 - Jul 2003	Project Associate and Consultant, CEDT, IISc, Bangalore, India.
Feb 1996 - Jul 1996	Project Associate, ERNET, ECE, IISc, Bangalore, India.
May 1995 - Feb 1996	Consultant, TPC Energy Management, Bangalore, India.
July 1993 - Mar 1994	Project Trainee, Bharat Electronics, Bangalore, India.

Honors, Recognitions, Memberships, Positions and Responsibilities

1. Selected by External Affairs Minister of India as one of the 10 leading Indian scientists outside India to discuss/advise on “Developing Cyber Capacity of India”.
2. I was selected as one amongst 15 persons to meet with Indian Prime Minister Narendra Modi in the Netherlands.
3. Invited to attend Microsoft Faculty Summit 2018.
4. Fellow of IETE, India.
5. Best paper award, ACM/IEEE Internet of Things - Design and Implementation (2018).
6. IEEE ComSoc Distinguished Lecturer on Internet of Things (1 out of 10 newly appointed DLs) in 2017.
7. Best paper runnerup award, ACM/IEEE Internet of Things - Design and Implementation (2017).
8. IEEE P1918.1 standard on Tactile Internet Vice chair.
9. IEEE Bangalore section - Publication award 2014 & 2015.
10. Invited by IEEE- YES! to address Young Engineers and Students at Globecom 2016.
11. Keynote/Distinguished speaker: (i) CYCLONE, IoT360, Rome, 2015; (ii) International Conference on Intelligent and Autonomous Systems, Hassan, 2015; (iii) “Internet of Things and Energy” in 3ME, TU Delft (2015); (iv) Workshop on 5G Internet of Things (IoT) jointly with 25th GISFI Standardization Series Meeting (GSSM 2016) (v) IEEE Distinguished Lectures at (BMSCE, Bangalore, 2016, Amrita College, MCE Hassan, 2016); (vi) Distinguished Lectures on IoT (Three universities in Srilanka, 2017); (vii) Keynote IEEE ISCC (2017).
12. Award of Grassroots project (two times) for innovations in teaching.
13. Invited to be part of QS university ranking evaluators.
14. Selected for IEEE Public Visibility Initiative - My interview and Article on IoT was selected (2014).
15. Senior Member of ACM (2012) and IEEE (2013).
16. IEEE Outstanding Contributor Award for IEEE P1900.2 Workgroup contributions, 2008.
17. Best paper award, IEEE PIMRC, 2009.
18. An article published in *IEEE Communication Letters*, “An Analytical Energy Consumption Model for Packet Transfer over Wireless Links”, was selected as the top 0.5% of papers IEEE ComSoc in Feb 2012.
19. Recognition by IEEE for contributions to the IEEE ComSoc Standards Program Development, 2014.
20. Selected as Dutch national representative to COST IC0905, 2009-2013.
21. Member of the *Society of Industry Leaders - Standard & Poor's Vista Research*, 2009 (by Invitation).
22. Invited to Project Review Panel of *Science Foundations of: Ireland* (2007), Belgium (2016); Finland (2017).
23. Invited as a Juror for the *Pirelli Innovation Award*.
24. Invited to Dagstuhl seminar on *Physical Cyber Social Computing*, 2013.
25. Member - Open Spectrum Alliance (OSA) (by Invitation).
26. Associate Editor, *Transaction on Emerging Telecommunication Technology*, 2011-present.
27. Editor IEEE Communications Magazine.
28. Editor IEEE Surveys and Tutorials.
29. Editor IEEE Transaction on Green Communication Networks, IEEE Communication Magazine Green Track.
30. Editor Elsevier-Journal on Networking and Computer Applications.
31. Editor Elsevier-Communication Networks.
32. Secretary of IEEE ComSoc Standards Development Board, 2012-2013.
33. CogWiNets Panel moderator IEEE ICC-2009.

34. Elected as Standards Liaison for IEEE TCCC, IEEE TCCN and IEEE AHSNTC.
35. First place for DC Motor drive and consolation prize for AC Motor Drive in Karnataka state level 'Do It Yourself' competition at S.J.C.E, Mysore, India, 1993.

Appendix - A

Project Proposals

- ◆ Project acquisitions with a success rate of ~37%.
 - ◆ Funded by Dutch national government agencies and the EU FP7 program.
- a. On IoTs, Sensors, Energy, & Personal Networks
 1. iCORE (One of the founding members, EU FP7 Project, 2 PhDs, ~700K€)
 2. GoGreen (Responsible person from TUDelft, IoPGencom, 1 PhD, ~230K€)
 3. MISCEA (Member, Implementation Work, ~100K€)
 4. MAGNET Beyond (Supported Prof. Niemegeers, 2PhDs, PostDoc, ~800K€)
 5. Joule Jotter (Initiated this proposal, ACM worldwide community project, US\$27000)
 6. SCOTT (Responsible person from TUDelft, EU H2020, 2 PhD, ~515K€)
 7. WINLAS (Responsible person from TUDelft, EU Defense Agency, 1 PhD, ~230K€)
 - b. On 5G Networking
 1. SOWICI (Responsible person from TUDelft, NWO, 1 PhD, ~230K€)
 2. MEANS (Responsible person from TUDelft, NWO, 1 PhD (moved to TU/e), ~230K€)
 3. FHN (IOP GenCom, 2 PhDs+PostDoc, ~700K€)
 - c. On Coordination & Support Action
 1. PEDCA (Pan-European Data Centre Academy, ~130K€)

Projects Executed

As a senior design consultant at Esqube Communication Solutions (P) Ltd. Bangalore, India (2003-2009)

1. CQube a 'click to talk' application for enabling the websites with interactive voice and video.
2. VoIP Player for decoding and playing back the voice data after snooping VoIP packets from the Internet.
3. VQube - a VoIP application suite.
4. Flash Player for enabling the websites with text, voice and video communications.
5. Callback facility for portals bringing PSTN and Web together.
6. PSTN Phone aliasing and Anonymous dialing applications.
7. PSTN Conferencing Solution with Web interworking.
8. SIP based PSTN Callback service.
9. PSTN-Web enabled Voice Mail service.

As a Project Associate & Consultant at CEDT, IISc, Bangalore (1999-2003)

10. Large Scale Conferencing System and Protocol design.
11. Design of Value added services on a VoIP conferencing suite and VoIP testbed.

As a trainee (BEL) and project associate (ERNet)

12. Development of Switched Mode Power Supplies and High power Resonant Converters for Radars (1994).
13. Design of high frequency magnetic components and high-voltage and High Frequency Power Supplies (Project Tempest for Indian military) at Bharat Electronics, Bangalore (1994).
14. Implementation of DQDB protocol cards (1996).

Students Supervised

Post Docs

Student's name	Research topic	Year
Vijay Rao	Space Robotics	Current
Kishor Chandra	Tactile Internet	Current
Xueli An	60GHz Networks Green Networks	2010
Jing Wang	Heterogenous Networks	2010

PhDs

Student's name	Thesis title	Year
Venkatraman Iyer	Edge computing for energy efficient IoTs	Current
Nikolaos Kouvelas	Energy Harvesting in IoT for smart infrastructure	Current
Sujay Narayana	The next generation internet of things	Current
Akshay Utama Nambi	Data - Driven Personalized Energy Services	2017
Vijay Rao	Energy Harvesting Wireless Sensor Networks	2017
Kishor Chandra	Millimeter Wave Networks for 5G communications	2017
Chayan Sarkar	Virtualizing the IoT	2016
Bien Quang	Handoff management in Radio over Fiber 60GHz indoor networks	2014
Stefan Aust	Advanced Wireless Local Area Networks in the Unlicensed Sub-1GHz ISM-bands	2014
Shi Huai Zhou	Fairness and Resource Allocation in Device-to-Device Wireless Regional Area Network	2014
T V Prabhakar	An Empirical Approach to Zero Energy Networking	2012
Javad Vazifehdan	Energy Aware Wireless Multi-hop Networks (Cum Laude)	2011
Jing Wang	Network Technologies for Future Home Networks using 60GHz	2010
Xueli An	Medium Access Control and Network Layer Design for 60GHz Wireless Personal Area Network	2010
Cheng Guo	Simple, reliable, scalable and energy efficient wireless sensor networks	2010
Yanying Gu	Personal Networks: Mobility and Clustering	2010
P. Pawelczak	Opportunistic Spectrum Access - Designing Link and Transport Layers	2009
Bao Linh Dang	Toward Seamless Networking in Indoor Environments in Millimeter Wave Bands	2008

MScs

Student's name	Thesis title	Year
Atul Pandaravila Biju	Self-optimizing facades: Virtual sensing of illuminance indoors	Current
Bontor Humala	Unsupervised Energy Disaggregation in Smart Buildings	Current
Shruthi Kashyap	Internet-connected kitchen appliances in a wireless power environment	Current
Duncan Lew	Integration of V2H/V2G Towards Effective Demand-Response Programs	Current
Rendong Liu	Advanced Data Management and Analysis for Distributed Energy Management System	Current
Renukaprasad Manjappa	Nonintrusive Crowd Density Analysis	Current
Anggrit Pinangkis	On Reduction of Beam-Searching Overhead in 60 GHz Communications	2017
Gauri Tawde	Scalability in LoRa Network	Current
Luis A. Moreira Cardoso	Solar Powered Passive Wireless Moisture Sensor with Cloud Communication	2017
Nikos Kouvelas	Energy Allocation Strategies for Micro Grids	2017
Alexander de Moes	AirLoc: Pedestrian dead reckoning for passenger localization	2017
Paul Marcellis	Frame Loss Characterization and Data Erasure Coding for LoraWAN	2016
Rizqi Hersyandika	Characterization of Human Blockage in 60GHz Communication	2016
Henrik John	Enabling Localization based services using wearable and handheld	2016
Luis Alfonso Gonzalez Godinez	Micro activity recognition using wearables for human augmentation	2016
Eloi Garrido Barrabes	Opportunistic Routing for Indoor Energy Harvesting WSN	2016
Arpan Govindraj	Sensing Locations: Occupancy Sensor Data Driven Automatic Determination of Sensor Locations	2016
Eloi Garrido Barrabes	Opportunistic Routing for Indoor Energy Harvesting WSN	2016
Andres Moreno	Design of a real-time micro-winch controller for Kite-Power Applications	2015
Xin Wang	Topology Control in Energy-Harvesting Wireless Sensor Networks	2015
Antonio Reyes Lua	User-level Energy Scheduling in Smart Grids	2015
Sujay Narayana	Reconcile Energy with Safety for Mixed Criticality Embedded Real-Time	2015

	Systems	
Jan Jaap Treurniet	From Check-in/Check-out to Be-in/Be-out: BLE-based Automated Journey Payment in Public Transportation	2015
Arjan Doff	Sensor-Assisted Movement Identification and Prediction for Beamformed 60 GHz Links	2015
Zhongxian Pan	Resource Allocation in Cognitive Radio Networks	2014
Prasanna Gururaj	VoIP support in LTE networks	2012
Preethi Prada	BOSCH: Wireless Network Tuning for Realtime Applications	2012
Pavan Gaonkar	TomTom: File Updates in V2V Networks	2012
Shruthi D	Neighbor Discovery in Energy Harvesting WSNs	2012
Ke Dong	Clustering in Wireless Networks	2011
Zhao Yukun	Human Mobility Models	2010
Hani Dabbagh	Free-space Optical Emulator for 60 GHz directional antenna equipment	2009
Vijay S	Allocation of Opportunistic Spectrum for Cognitive Radio Ad hoc Networks (Cum Laude)	2009
Yiyu Zhao	Performance study of scheduling algorithms for WiMAX Networks	2007
Yanying Gu	Clustering for Personal Networks	2006
Yonghua Li	FEW PeaNets: A Framework for Emulation of Wireless Personal Area Networks	2006

Education

Degree/Certificates	Institution/University	Year	% Marks
3TU University Teaching Qualification	TU Delft, the Netherlands	2014	“Excellent”
Ph.D	Indian Institute of Science, Bangalore, India	2004	CGPA 6.5/8
M. Tech (Industrial Electronics)	Mysore University (S. J. C. E Mysore)	1994	77.9%
B. E. (Electronics & Communication)	Mysore University (M. C. E Hassan)	1991	70.3%
Class XII	Karnataka State Pre-University Education Board	1987	76%
Class X	Karnataka State Secondary Education. Board	1985	74%

Theses

- ◆ **Ph.D Thesis:** *A New Paradigm for Audio Conferencing on Voice Over IP (VoIP)* - Indian Institute of Science, Bangalore, India, 2003.
 - This work involved the following aspects: (a) Design of a novel distributed audio conferencing architecture; (b) System design and building various servers and client for the conferencing support on IP networks; (c) Analysis of the real-time packets and designing the systems accordingly; (d) Conceiving various algorithms for the automatic selection of participants; (e) Studying behavioral aspects of humans in a conference; (f) Simple Voice Activity Detection algorithms; and (g) Building the prototype system and testing them. The work also involved indigenous conferencing protocol design since SIP had no distributed conferencing support when the work was carried out. The work was completely executed and demonstrated with the help of a prototype.
- ◆ **Master’s project:** *Scaled Down Model of an S Band Coupled Cavity Traveling Wave Tube (TWT) Power Supply* - Bharat Electronics Ltd., India, 1994.
 - TWT used in Radars, needs a high power ripple free DC voltage (45KV, 26KW). The power supply model was developed at Bharat Electronics, Bangalore, India. In this project, I modeled a Resonant Mode DC-DC Converter to avoid high power spikes. Since the power involved is in the

order of tens of KW, SCRs were used as the switching devices. To find the values of the L and C of the tank circuit, a mathematical model was developed along with a numerical iterative algorithm to fix the values of L and C. A *Pspice* simulation a scaled down 0.5KW converter was built and tested successfully.

- ◆ **Undergraduate project:** *Microprocessor based Real Time Voice Encryption* - MCE, Hassan, India, 1991.
 - This project was intended to protect voice transmission for military and intelligence purposes against possible intrusion through encryption. A pilot system was developed using 8085 Microprocessor. The voice signals were digitized and then were encrypted digitally. A simple algorithm for encryption was developed. An USART based serial transmission and reception was also implemented as part of the project to test and demonstrate the ideas proposed in the project.

Teaching and Lectures

Courses Offered

1. Instructor for MSc course on Ad Hoc Networks (TUDelft, 2013-Present)
2. Instructor for MSc course on Internet of Things (TUDelft, 2013- Present)
3. Instructor for BE courses at MCE, Hassan, India, 1992:
 - a. Computer Networks
 - b. Digital Circuits
4. Innovation in Teaching Courses in a Nutshell:
 - a) <http://www.icto.tudelft.nl/nl/icto/nieuws/artikel/detail/it-for-teaching-msc-course/>
(OR) <https://www.youtube.com/watch?v=sjXSGBliakU&feature=youtu.be>
 - b) <https://www.youtube.com/watch?v=O6wzeczNieA&feature=youtu.be>

Lectures

1. A Course on TCP/IP for Engineers from British Physical Laboratories (BPL), Bangalore, October 2000.
2. Continuing Engineering Education Programme (CEEP) course on VoIP at CEDT, IISc, Bangalore, for participants from academic institutions and industry, September 2002.
3. Lectures for students at the Dept. of Electrical Engineering, IISc, Bangalore on VAD and Personal Networks, 2008.
4. Cognitive Radio Networks - Guest lecture TUDelft (Ad hoc network course, 2010-2011)
5. Energy Harvesting in WSNs - Guest lecture TUDelft (Ad hoc network course, 2012)

Tutorials, Invited Talks, and Demonstrations

- ◆ IEEE Distinguished Lecture at Amrita College, Bangalore 2016.
- ◆ Keynote speech Workshop on 5G Internet of Things (IoT) jointly with 25th GISFI Standardization Series Meeting (GSSM).
- ◆ Distinguished Lecture on Internet of Things and Energy in 3ME, TUDelft.
- ◆ Keynote Speech CYCLONE, IoT360, Rome Oct, 2015.
- ◆ Keynote Workshop on 5G Internet of Things (IoT) jointly with 25th GISFI Standardization Series Meeting (GSSM)
- ◆ Keynote at International Conference on Intelligent and Autonomous Systems, Hassan, 2015.
- ◆ IEEE Distinguished Lectures at BMSCE, Bangalore, 2015.
- ◆ IEEE Distinguished Lectures at Amrita College of Engineering, 2016.
- ◆ IEEE Distinguished Lectures at MCE Hassan, 2016.
- ◆ IEEE Distinguished Lectures on IoT at three universities in Srilanka, 2017.
- ◆ Invited paper and talk, IWCMC, 2015.
- ◆ Tutorial on Internet of Things at IEEE CCNC, 2014, 2015, 2016, 2017.
- ◆ Invited IEEE ComSoc Talk at New Jersey Institute of Technology, NJ, USA, -- Approximate Services in Internet of Things.
- ◆ IEEE GlobeCom-2012 Lightning Talk, Anaheim -- Approximate Services.
- ◆ IEEE GlobeCom-2015 Lightning Talk, Sandiego - Non-Sense!
- ◆ Panel talk for Young Scientists and Engineers, IEEE GlobeCom-2016, Washington DC.
- ◆ Invited speaker IEEE ANTS-2012, Bangalore, -- iCore - Internet Connected Objects for Reconfigurable Ecosystem, Bangalore.
- ◆ Keynote Speaker -- IEEE-ACM WINBIS 2009 Katmandu, Nepal on Personal Networks.
- ◆ Demonstration of the VoIP-testbed developed at CEDT, IISc, Bangalore, to members of Communication Software Industry and venture capital members. This helped in establishment of startup firm Esqube Communication Solutions Pvt. Ltd. in 2003.

- ◆ Lab demonstrations for workshop on “A Course on Internet Telephony” conducted by Dept. of ECE, IISc, Bangalore, 2002.

Other Academic Activities

- ◆ Assisted in developing a Microprocessor Application Lab Primer for BE students of the state of Karnataka (1991-1992).
- ◆ Member of WorkGroups -- IEEE P1900.1-7 standards suite (2005-)
- ◆ IEEE P1723 standards on SOA (2012--).
- ◆ Deputy Work Package Leader of WP2 - MAGNET Beyond project (2006).
- ◆ Served on *Seven* MSc Thesis Examination Committees at TUDelft, (2005-2013).
- ◆ Dynamic TVWS Spectrum Allocation Policy - whitepaper and project proposal (2009).
- ◆ Member of ECMA PN Standardization workgroup, (2011).
- ◆ Member of Examination Committee, CE & CS, EWI, TUDelft, (2013-present).
- ◆ Supported with supporting staff to fix issues in wireless coverage of EWI building, TUDelft, (2013).

Professional Activities

- ◆ Editorial board of IEEE-COMST, IEEE-Commag, IEEE-TGCN, Elsevier-JNCA, Elsevier-ComNet.
- ◆ IEEE and IEEE ComSoc, Computer society, Senior Member.
- ◆ Senior Member ACM.
- ◆ IEEE Standards Association Member
- ◆ **Member of IEEE CSPDB (2015-2017).**
- ◆ **Secretary of IEEE CSDB (2013-2014).**
- ◆ Elected IEEE TCCN Secretary 2010-2012.
- ◆ Elected IEEE TCCN Vice Chair (Europe) 2013-2014 & 2015-2016.
- ◆ Member - IEEE DySPAN (2011-) & IEEE SCC41, Standards Coordination Committee (2005-2011).
- ◆ Member -- IEEE SCC41 Policies and Procedures Subgroup, Web-master of SCC41, DySpan-SC.
- ◆ IEEE VTC-2013 CRSS Track chair.
- ◆ IEEE Globecom-2015 CRN Track chair.
- ◆ Late Breaking Results Committee Associate Chair SIGCHI 2004.
- ◆ Session Chair - IEEE CCNC, Globecom, VTC, LCN, ICC.

Organizing Committees and Workshops

1. Co-founder, Steering committee, IEEE Next Generation Green ICT Workshop ICC-2016 Kuala Lumpur.
2. IEEE SECON Student Travel Grant Chair, 2014-2017.
3. Track chair, Consumer Communications and Networking Standards track, IEEE CCNC, Las Vegas, 2016.
4. Technical Program co-Chairs, Green Standardizations and Industry Issues for ICT and Relevant Technologies (GSICT), Globecom 2015.
5. Member Selection Committee, IEEE Student Competition on *Communication Technology Changing the World* - 2015, 2016.
6. Organizing Committee Member, Tutorial Chair, IEEE GlobeCom, San Diego, 2015.
7. Organizing Committee Member, Green Track chair and Student Travel grant chair, IEEE GlobeCom, Washington DC, 2016.
8. Organizing Committee Member, Publicity chair, IEEE GlobeCom, Singapore, 2017.
9. Organizing Committee Member, Publicity chair, IEEE ICC, Kansas, 2018.
10. Publication co-chair, IEEE Conference on Standards for Communication and Networking, Tokyo, 2015.
11. Publication Co-Chair, IEEE CCSNA, Globecom, San Diego, 2015.
12. TPC Chair, IEEE SCVT 2014 : 21st IEEE Symposium on Communications and Vehicular Technology, Delft.
13. Track chair, Consumer Communications and Networking Standards track, IEEE CCNC, Las Vegas, 2015.
14. Co-founder, TPC Chair and Organizing Committee Member, IEEE Next Generation Green ICT Workshop ICC-2015 London.
15. Member Selection Committee, IEEE Student Competition on *Communication Technology Changing the World* - 2014
16. Organizing committee member, Publicity Chair ACM MobiHoc-2014 Philadelphia.
17. Organizing Committee Member, Student Travel Co-chair, IEEE SECON-2014, Singapore.
18. Co-founder, TPC Chair and Organizing Committee Member, IEEE E2Nets: Workshop on “Energy Efficiency in Wireless Networks and Wireless Networks for Energy Efficiency”, ICC-2010 Cape town, ICC-2011 Kyoto, ICC-2012 Ottawa, ICC-2013 Budapest, ICC-2014 Sidney.
19. Organizing Committee Member, Tutorial Chair, Demonstration Co-chair and Publicity Chair of IEEE CCNC from 2009 to 2013, Las Vegas.
20. Publication and EDAS Co-Chair, IEEE CCSNA, Globecom, Austin, 2014.

21. Publicity co-Chair, IEEE CCSNA, Globecom, Atlanta, 2013.
22. Organizing committee member, Publicity Chair ACM MobiHoc-2013 Bangalore
23. Co-founder, TPC Chair and Organizing Committee Member, IEEE CogNet: Workshop on “Towards Cognition in Wireless Networks”, ICC-2007, Glasgow, ICC-2008 Beijing, CogWiNets ICC-2009, Dresden.
24. Co-founder, Steering Committee and Organizing Committee Member, TPC chair for IEEE Personalized Networks Workshop, San Jose 2006, Philadelphia 2007, Las Vegas 2009 -- 2012.
25. Co-Chair and Organizing Committee Member, Workshop WILLOPAN: Wireless Personal and Local Area Networks, COMSWARE 2008, Bangalore.
26. Organizing Committee Member, Publication Chair, COMSWARE-2009, Dublin.
27. Organizing Committee Member, Publicity Chair - Mobicare, Mobile Health Care Workshop, Mobiquitous-2009, Toronto.

Extra-Curricular Activities

1. **Organising Committee member** during 1997 - 1998, and **Secretary, Samskrita Sangha**, a Cultural Organization at IISc, Bangalore, during 1998- 1999. <http://www.iisc.ernet.in/ssangha/>

I was involved in leading a team of *ten* members in conducting/organizing cultural programmes that reflected Indian Heritage and Culture.

2. **Member, Students Advisory Committee (SAC)** to the Director, IISc, Bangalore, for *two* years during 1999 and 2000.

This committee represents the students of the Institute; I was involved with academic affairs. I was also involved with relief activities under Students’ Council during Orissa Cyclone and Gujarat Earthquake.

3. **President - Mess Committee**, IISc Hostels, during June 2000-Dec. 2000

I was responsible for smooth running and maintenance of the Messes catering to about 1500 students. Mess committee is an interface between Workers, Students and the Wardens/Authorities. As a mess president I lead a team of about *twelve* members team and I responsible of handling a budget of rupees Rs.1.5M per month.

4. **Member - Core-Committee and Treasurer, Prasthutha**, - a Students’ Forum of IISc, during 1999-2002; <http://www.iisc.ernet.in/prasthu/>

I was part of a four-member team building this organization. We were involved in arranging lectures/debates by eminent personalities on various issues - Scientific, Social and Cultural. I was holding the additional duties of *Treasurer*, responsible for generating funds for all our activities and maintaining accounts during 1999 to 2000.

5. **Member - Department Curriculum Committee (DCC)** of CEDT, IISc, during 1998-2002.

I was responsible for representing research students of the department and act as a buffer between students, the chairman, and the faculty.

N.B.:

- A. Please see **Appendix A, B, C** for details of the work profile.
- B. Please see **Appendix-D** for TPC memberships, Review work for Journals and Conferences.
- C. Details of the **Referees** would be provided upon request.

Appendix - B

Assistant Professor/Senior Researcher at Embedded Software/Wireless and Mobile Communications (WMC), TU Delft, Netherlands (March 2005 - Present)

I initially worked as a Postdoctoral researcher in Wireless and Mobile Communications group, TU Delft from March 2005 to January 2008 and then a permanent research faculty in WMC group from January 2008-2011. My major contributions/responsibilities can be summarized briefly as:

1. Acquisition, research and implementation of Dutch national and European projects.
2. Initiated and organized three workshops: Personalized Networks (PerNets), Cognitive Networks (CogNets) and Energy Efficiency in Wireless Networks and Wireless Networks for Energy Efficiency (E2Nets) have been successfully running now with IEEE ICC.
3. Organizing workshops, conferences, and chairing sessions apart from reviewing papers for a large number of conferences, journals and magazines.
4. Contributed significantly to IEEE P1900.x standardization work on Cognitive Radios. WG member of six standards.
5. Supervising MSc and PhD students.
6. Published over 150 conference and journal papers (including book chapters) and contributed to technical reports/deliverables of the projects.
7. Contributed to EU project proposals representing the group.
8. I am also involved in the task of setting up of collaboration with Indian universities.
9. I am taking leadership role in being standards liaison for IEEE TCs and I was Secretary of IEEE CSDB and member of IEEE CSPDB.
10. I had been the Secretary of IEEE TCCN, currently the Vice-chair of IEEE TCCN.

My main task had been to work on European projects EU funded MAGNET and MAGNET Beyond, and IST funded PNP2008. I was involved in Future Home Networks project. In these Personal Network based projects, I have mainly contributed on network architectures, Personal Network (PN) clustering, Foreign Communications and PN Federations. I have guided PhD and MSc students and have also published on these topics. I have also worked on auto-configuration and self-configuration, service discovery in PNs, localization algorithms in sensor networks.

I supervised PhD theses on 60GHz indoor communications and handoffs, Cognitive Radios, Group-Mobility models especially for PNs and Vertical Handoff in Future Home Networks. Our work on OPT-Online Person Tracking system has been demonstrated at Mobihoc conference and has been used as one of the context generator in MAGNET Beyond projects. Many research publications based on our new ideas in 60GHz Future Home Networks lead to funding of curiosity driven project in the domain of Fi-Wi networks with directional antennas.

I was an IEEE working group member of the IEEE SCC41, P1900.1, P1900.2, 1900.5/a/.1, 1900.6 and P1900.4. I am part of IEEE P1900.1/a, P1900.2, 1900.5 and 1900.6/a standards. I have contributed significantly to them, especially P1900.2 for which I have received a certificate of appreciation for the outstanding contribution. I also take care of IT subcommittee of IEEE DySpan-SC. I am a member of IEEE ComSoc Standards Board. I have been an active member, secretary and now the vice chair of IEEE TCCN. I am a member of IEEE CSPDB providing impetus for identifying and helping new standards in wireless networking, mobile communication, etc. I served as the Secretary of IEEE CSDB, which governs all the IEEE ComSoc sponsored IEEE Standards.

Apart from these, I have conducted and chaired conferences, tutorials and, workshops on Personal Networks and Cognitive Radio. I have been invited on to the Organizing Committee and Technical Programme Committee of many prestigious conferences and I have been a reviewer for many IEEE transactions and Elsevier journals. Further, I have contributed and lead proposals for new workshops.

I have been coordinating setting up of collaboration between TUDelft and Indian Institute of Science. Recently IISc and TU Delft signed an MoU to further the cause of joint work in many areas of interests and research, especially in the field of computing and communications. I have received letter of appreciation from the chair of WMC and the dean of EWI, TUDelft for my contribution in the group *seven* times. Recognizing my work at WMC, TU Delft, I was invited as a juror for Pirelli Mathematics track awards and as a reviewer of Ireland Science Foundation funded project proposals with gratification.

From 2012 onwards, I am working as a tenured Assistant Professor at Embedded Software group in EEMCS, TUDelft. My research work profile involves Internet of Things, Cyber Physical Systems, Energy Harvesting WSNs, 60GHz

indoor home networking with directional antennas. I am specifically working on Approximate services, Virtual Sensing, IEEE 802.15.3c, IEEE 802.11ad for 60GHz networks and Fairness in IEEE 802.22 WRANs. I am teaching two master's level courses - Ad hoc networks that I handle independently, and seminar course on Internet of Things that I offer with another colleague. Currently, I am (co-)supervising seven Ph.D students and 3 Master students. Further, my work profile also deals with acquisition of projects funded by EU and National agencies. As a tenured faculty I am involved in Examination Committee and also helped the support staff for improving wireless network infrastructure.

Appendix - C

Senior Design Consultant at Esqube Communication Solutions Pvt. Ltd., Bangalore, India.

Voice Enabled Applications and Services (July 2006 - 2009)

I was working as a senior design consultant taking care of the innovative voice-enabled applications for Web as well as standalone applications mainly on Windows platform. The products/applications that I was involved in during this period are:

1. CQube a 'click to talk' browser-based application for enabling the websites with interactive voice and video.
2. Web-based Voice Mail - a voice mail application for the webpages.
3. VoIP Player for decoding and playing back the voice data after snooping the VoIP application packets from the Internet.
4. VQube - a VoIP application suite indigenously developed at Esqube - I worked on the design of various modules, testing, and debugging.
5. Flash Player for enabling the websites with text, voice and video communications.
6. Worked on design and development of Telecom and VoIP related service orientated projects such as web based calls, multiparty conferencing , etc.
7. Callback facility for portals bringing PSTN and Web together.
8. PSTN Phone aliasing and Anonymous dialing applications.
9. PSTN Conferencing Solution with web interface and management.
10. SIP based PSTN Callback service.
11. PSTN-Web enabled Voice Mail service.
12. Wrote project proposals for external funded research projects as well as R&D proposals for customers.
13. From Esqube, I have filed a total of 4 patents out of which 1 is awarded, 1 has PCT acceptance.

I was also involved in managing and team building including recruitment and interacting with clients at Esqube.

Development of P2P VoIP Services and an Ad hoc Service network (November 2003 - 2005)

I was leading a team of ten members that developed a customizable VoIP application stack. I was responsible for guiding the team members, testing, discussing with customers and managing the work flow. At Esqube I was involved in infrastructure development of P2P VoIP services. This included server deployment and client development too. Mainly, I was involved in design of VoIP services and fine-tuning the application core for very low bandwidth conditions, aiming at long distance low cost solutions at low bandwidth. I designed the servers and developed newer algorithms that suit the requirements for dial up users for example, Adaptive playout delay algorithm and VAD.

Further, I was involved in the development of a VoIP application called VQube along with scalable servers, Web based VoIP clients and Web based Voice Mail system (called CQube). My work also included solving many network issues for VoIP such as Firewall, NAT, etc. I integrated many Codecs and facilities such as customizable Answering Machine, Voice Mail Service, Call recording, Network quality measurement and P2P conferencing. The aim was to have a VoIP solution that would try to be a Personal Voice Assistant as well.

I was also involved in leading a team of four towards implementing an "Ad hoc Service Network". We used Bluetooth enabled sensors from *ImpulseSoft* for the purpose. We connected these small sensor nodes in ad hoc mode with a "Personal Area System" (PAS), which is connected to the backbone network. I started two processes - Employee selection and Network administration processes. I was responsible for network maintenance and network administration.

Appendix - D

Project Associate and Consultant at CEDT, IISc, Bangalore, India (1999 - 2003)

Design and Implementation of Voice over IP (VoIP) Testbed

This project was aimed at providing a complete corporate telecom solution with the facilities of conferencing, voice mail, PBX facilities and gateway connectivity to the PSTN. The setup for the product involved these components: Call Processor, Conference Server, PSTN Gateway, Voice Mail Server, PBX Server and Soft Clients. Initially, I joined the project as a Project Associate and after one year of completion I was designated as Project Consultant. As a project associate, I was designing and coding the Conference server and Call Processor, along with the overall design of the complete VoIP system. I developed a proprietary protocol to implement a novel system for conferencing. In the second year I developed a distributed conferencing solution and built a prototype of the whole system. The coding of the software was carried out using C++. I was involved coding, designing the architectures and in guiding project assistants towards achieving the aim of building the prototype. New idea generation and new algorithms for implementations were necessary part of my work profile.

In the third year, Voice Mail Server design was carried out and implemented with other project assistants working in the team. I was also involved in designing PBX functionalities for VoIP clients. The testing of the various entities in the prototype formed essential aspects of the work carried out.

In the fourth year a PSTN Gateway was designed and guided project assistants in implementing the gateway. The work involved extensive work in understanding Dialogic (Intel) hardware and the associated API. The gateway design involved an additional server and its integration into the Call Processor. It also included testing of various entities of the VoIP test-bed collectively.

I was also involved in guiding a project trainee from a foreign university to implement SIP Proxy and Client. The discussions and brainstorming with him paved way to design work for providing conferencing support using SIP. The ideas from these discussions ultimately lead to presenting a few papers in international conferences.

The conferencing system was tested with multiple parties and some of the results were published in the PhD thesis which was part of this work. Performance studies were done during the course of this project. Later this work was productized and branded as VQube at Esqube communication Solutions Pvt. Ltd.

Apart from the development work, I have given many short lectures on VoIP. Many industry courses were conducted in our department and I have supported the team by giving lectures. One of them was the weeklong VOIP workshop that was organized by our department and I had given 12 hours of lectures on various issues in VoIP and development of a VoIP Product. We successfully demonstrated our project to leading corporate CEO's and they have applauded our work. The basic ideas, the experiences and the lessons learned during this exercise were taken to the next stage to make a product VQube, at a startup by professors from IISc - Esqube Communication Solutions. I have also guided three groups of undergraduate students for their final year project and many short-term projects for B.E. students in the third and fourth years.

Appendix - E

Reviewer for following Journals

1. IEEE Sensors.
2. IEEE Systems Journal.
3. IEEE Intelligent Systems.
4. European Transaction on Telecommunication.
5. International Journal of Modeling and Simulation.
6. IEEE Communication Letters.
7. IEEE Transactions on Mobile Computing.
8. ACM Mobile Computing and Communications Review (MC2R)
9. IEEE Transactions on Knowledge and Data Engineering.
10. IEEE Transactions on Computers.
11. IEEE Transactions on Communication.
12. IEEE Transactions on Multimedia.
13. IEEE Transactions on Software Engineering.
14. IEEE Transactions on Wireless Communication.
15. IEEE Transactions on Automation Science and Engineering.
16. IEEE Transactions on Parallel and distributed Systems.
17. IEEE Transactions on Vehicular Technology.
18. IEEE - JSAC, special Issue on Cognitive Radio, 2006, 2010.
19. IEEE Internet Computing Journal.
20. IEEE Communications Magazine.
21. IEEE Transaction on Multimedia.
22. IEEE Security and Privacy Journal.
23. IEEE Multimedia.
24. IEEE Networks.
25. IEEE Computer Magazine.
26. IEEE Software.
27. IEEE Wireless Magazine.
28. Elsevier Journal of Network and Computer Applications.
29. Elsevier Journal of Speech Communication.
30. Elsevier Journal of Parallel and Distributed Computing
31. Elsevier Journal of Computer Networks.
32. Elsevier Journal of Computer Communications.
33. Elsevier Journal of Neurocomputing,
34. Elsevier Telecommunications Policy,
35. EURASIP JWCN
36. EURASIP Journal on Audio, Speech, and Music Processing
37. Wiley Wireless Communications and Mobile Computing
38. Ad-Hoc & Sensor wireless Networks Journal.
39. Zhejiang University-SCIENCE A.
40. IET Communications (formerly IEE Communication Proceedings).
41. IGI Global book series.
42. Journal of Ad-Hoc & Sensor wireless Networks.
43. International Journal of Sensor Networks.
44. J. Scientific Research and Essays.
45. Int. J. of Sensor Networks.
46. Informatica - Int. J. on Computing and Informations.
47. IEEE JSAC Nano-Communication, IEEE JSAC- Special Issue on Emerging Technologies in Communications
48. Springer Journal of Network, and Systems Management,
49. Journal of Communications and Networks,
50. IEEE Communication Surveys and Tutorials
51. IEEE JSTP
52. Journal of Network and Systems Management.

TPC Member

1. IEEE Symposium on Computer and Communications 2002 -- 2008.
2. ATNAC-04.
3. COMSWARE-2007.
4. CROWNCOM 2007-2014.

5. GlobeCom-Wireless Communication 2007
6. GlobeCom SAC 2008, 2009, 2010, 2011
7. GlobeCom AHSN 2010, 2011, 2012.
8. Globecom CRN 2012, 2013.
9. ChinaCom-2007, 2008.
10. CoNET-2007.
11. IEEE ICCCN-2008
12. IEEE ICC, Advances in Networking and Internet 2008
13. IEEE ICC, Wireless Networking-2008, 2009, 2010, 2011, 2012, 2013, 2014.
14. IEEE ICC Selected Areas in Communication - 2009, 2010, 2014.
15. IEEE ICC Ad Hoc and Sensor Network track 2009, 2011, 2010, 2012, 2013.
16. ACM MM (Networking) -2007.
17. IEEE WCNC-2008, 2009, 2010, 2011, 2012, 2013.
18. IEEE PIMRC-2008, 2009, 2010
19. IEEE VTC Fall-2008, Spring-2009, Spring-2010, Fall-2010, 2012, 2013.
20. Networking Track IEEE CCNC-2009, 2010, 2013
21. IEEE ICCCN-2008, Cognitive Radio Track.
22. IEEE SECON-2009, 2010, 2011, 2012, 2013
23. IEEE LCN -2009, 2010.
24. CoRoNet-2009, Mobicom, Beijing.
25. ACM WICON-2008, 2009.
26. IEEE ADCOM-2008, Chennai.
27. WoNGeN-2008, 2011 (with IEEE HiPC).
28. MOBILIGHT-2009, 2010.
29. Wireless VITAE 2009.
30. COGCOM 2009 (ICCCN).
31. SDR/Whitespace Workshop with SECON, 2010.
32. IEEE IMSAA 2009
33. Cognitive and Resource Aware Communication (CRWC), ICCCN 2011
34. NCC, Bangalore, 2011
35. International Conference on Ubiquitous and Future Networks (IEEE ICUFN) 2009, 2010.
36. Member International Conference on Future Information Networks (ICFIN), 2009
37. International Conference on Computer Science and Global Communications Technology, Nepal, 2009.
38. Ubi-Islands 2009, 2010
39. IWCMC 2011, 2012
40. Cognitive, Cooperative & Diversity Techniques (CCDT), 2012
41. IEEE GreenCom 2011, 2012, 2013
42. Workshop Cognitive Radio Resource Aware Networks (CR-RAN), 2010
43. Workshop on CR-TVWS, IPCCC, 2010
44. Advances in Next Generation Services and Service Architectures (ANGSA) 2010
45. Mobihealth, at MobiHoc, 2011
46. Wireless Telecommunication Symposium (WTS), 2010
47. Cognitive and Cooperative Networks Workshop at Infocm 2011.
48. CogArt 2011.
49. Future Network and MobileSummit 2013.
50. Cooperative and Cognitive Communication IEEE Infocom-2012
51. Cognitive, Cooperative & Diversity Techniques (CCDT) 2012 Workshop.
52. PerCom CCC 2012, 2013 Workshop.
53. CORAL 2012, 2013 Workshop.
54. USENIX Self-IoT 2012, 2013 Workshop.
55. IEEE goSMART 2012 - 2014.
56. ICBME-2012, India
57. International Conference on Telecommunications 2012, 2013.
58. IEEE ICC-CQR, 2012.
59. Internet Technology and Applications,
60. WCSP'12 - WNS.
61. IWCMC2012-Wireless Networks track.
62. Future Network Summit-2013.
63. Symposium on Communications Engineering - JIEEEEC 2013
64. MobileCloud-2013 at MobiHoc,
65. MILCOM-2013,
66. ICUFN-2013,

67. IEEE RAICS 2013,
68. LCDNET-2013 at MobiCom,
69. SENSORNETS-2013, 2014, 2015, 2016
70. CCNC-14 Demos,
71. ICCVE-2013,
72. iTAP 2013.
73. IEEE Infocom 2016, 2017.
74. IEEE ICC-2017 (IoT track) and IEEE Globecom

Reviewed for following Conferences

1. ACM - SIGCHI - 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011.
2. British HCI - 2006, 2007, 2008.
3. ACM-SIGCHI DIS2004: Designing Interactive Systems, Cambridge, Massachusetts.
4. ACM- Computer Supported Collaborative Work - CSCW 2004, 2008, 2010.
5. ACM workshop on Modeling, Analysis and Simulation of Wireless and Mobile Systems, San Diego, 2003, and Venice, Italy, 2004.
6. IEEE International Conference on Communication Systems - 2006.
7. IEEE International Conference on Network Protocols - 2006.
8. IEEE International Conference on Communications and Electronics - 2006
9. IEEE European Wireless 2006.
10. ACM HCI 2006, 2008
11. CCCT 2004, Texas Austin, CCCT 2005 - University of Texas, Austin.
12. Risk Management and Cyber Informatics (RMCI- 2005, 2006, 2007, 2008, 2009).
13. IEEE International Conference on Computer Communications and Networks, ICCN-2007.
14. ACM VRST-2007.
15. SCVT-2007
16. IWCMC 2010
17. IEEE TenCon-2008.
18. IEEE DySpan 2008, 2010
19. Third International IFIP Conference on New Technologies, Mobility and Security - 2009
20. IEEE ICC-2010, Signal Processing Track.
21. IEEE ADCOM - 2009.
22. ICCCN 2007
23. IEEE ICNP 2006
24. IEEE Conference on Wireless Communication and Signal Processing 2009
25. Workshop on Mobile Computing and Networking Technologies (WMCNT). 2011
26. Workshop on Ubiquitous Computing and Networks, with Globecom, 2011
27. ACM EICS 2010
28. ACM CSCW 2011
29. European Wireless Technology Conference (EuWiT) 2010
30. Future Network and MobileSummit 2010
31. NTMS Mobility Track, 2009

Appendix - F

Patents

Patent No	Title	Type
900/CHE/2006	<i>A system "click to video talk" for establishing a VoIP video and method thereof, with R S Varchas, S Vinay, Vijay S S, H S Jamadagni, N K Rajasekharan.</i>	Indian - Granted (Esqube, Bangalore)
PCT/IN06/000289	<i>A system "click to video talk" for establishing a VoIP video and method thereof, with R S Varchas, S Vinay, Vijay S, H S Jamadagni, N K Rajasekharan.</i>	International - PCT Granted (Esqube, Bangalore)
1545/CHE/2006	<i>A method for broadcasting on a network, with C R Anand, R S Varchas, Vijay S, H S Jamadagni, N K Rajasekharan.</i>	Indian (pending) (Esqube, Bangalore)
01291/CHE/2007	<i>A method to enable web page with media/integrated media communication engine with R S Varchas, Vijay S, H S Jamadagni, N K Rajasekharan.</i>	Indian (pending) (Esqube, Bangalore)
00887/CHE/2007	<i>A dependable and anonymous peer to peer buy and sell system through buddy services with R S Varchas, Vijay S, H S Jamadagni, N K Rajasekharan.</i>	Indian (pending) (Esqube, Bangalore)
PCT/IN07/000028	<i>Speech detection using order statistics with R M Shankar, Vijay S, H N Shankar</i>	PCT Granted (PESIT, Bangalore)
PCT/IN2008/000875	<i>Determining the presence of a user in an online environment with R M Shankar, Vijay S, H N Shankar</i>	PCT (pending) (PESIT, Bangalore)
3003/CHENP/2009	<i>Speech detection using order statistics with R M Shankar, Vijay S, H N Shankar</i>	Indian (Under process) (PESIT, Bangalore)
12/515,536	<i>Speech detection using order statistics with R M Shankar, Vijay S, H N Shankar</i>	US (Granted) (PESIT, Bangalore)
	<i>Determining the presence of a user in an online environment with R M Shankar, Vijay S, H N Shankar</i>	Indian (in progress) (PESIT, Bangalore)
	<i>Determining the presence of a user in an online environment with R M Shankar, Vijay S, H N Shankar</i>	US (in progress) (PESIT, Bangalore)

List of Publications

Citations - H-Index: 27 (Top 5% among computer scientists)

Erdős number: 5 (Paul Erdős > Joel H. Spencer > Remco van der Hofstad > Piet Van Mieghem > Ramin Hekmat > Venkatesha Prasad)

Journals

- [1] S. N. Akshay Uttama Nambi, R. Venkatesha Prasad, Antonio R. Lua, "Decentralized Energy Demand Regulation in Smart Homes", Green Communications and Networking IEEE Transactions on, vol. 1, pp. 372-380, 2017.
- [2] Kishor Chandra, R Venkatesha Prasad and Ignas Niemegeers "Performance analysis of IEEE 802.11ad MAC protocol", in *IEEE Communications Letters*, vol. 99. March, 2017.
- [3] Chayan Sarkar, Vijay S. Rao, R. Venkatesha Prasad, Sankar Narayan Das, Sudip Misra, and Athanasios Vasilakos, VSF: An Energy-Efficient Sensing Framework using Virtual Sensors. *IEEE Sensors Journal*, 2016
- [4] S. N. A. U. Nambi, E. Pournaras and R. Venkatesha Prasad, "Temporal Self-Regulation of Energy Demand," in *IEEE Transactions on Industrial Informatics*, vol. 12, no. 3, pp. 1196-1205, June 2016.

- [5] Akshay Uttama Nambi S.N., and R. Venkatesha Prasad (2016), Toward the Development of a Techno-Social Smart Grid. IEEE Communications.
- [6] S.F.Bush, J. Paluh, G. Piro, V S Rao, R Venkatesha Prasad, A. Eckford, "Defining Communication at the Bottom", IEEE MBMC, 2016.
- [7] Stefan Aust, R. Venkatesha Prasad, Ignas G. M. M. Niemegeers, Outdoor Long-Range WLANs: A Lesson for IEEE 802.11ah, IEEE COMST, pg 1761-1775, 2015.
- [8] Kishor Chandra, R Venkatesha Prasad and Ignas Niemegeers, "CogCell:Cognitive Interplay between 60GHz picocells and 2.4/5GHz hotspots in the 5G Era," *IEEE Communication Magazine*, Emerging Applications, Services and Engineering for Cognitive Cellular Systems (EASE4CCS), July, 2015.
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- [11] V S Rao, Akshay Nambi, R Venkatesha Prasad, I.G.M.M. Niemegeers, "On Systems Generating Context Triggers Through Energy Harvesting" IEEE Communications, June 2014, in Context-Aware Networking and Communications series.
- [12] Huaizhou Shi, R Venkatesha Prasad, I. G. M. M. Niemegeers, Ming Xu, "Spectrum and Energy Efficient D2DWRAN" IEEE Communications Magazine, 2014,
- [13] R Venkatesha Prasad, S Devasenapathy, V S Rao, J Vazifehdan, Reincarnation in the Ambiance: Devices and Networks with Energy Harvesting, pp. 1- 19, *IEEE Communications Surveys and Tutorials*,2014.
- [14] Huaizhou Shi, Venkatesha Prasad, Ertan Onur, I.G.M.M. Niemegeers, Fairness in Wireless Networks - Issues, Measures and Challenges, IEEE ComST, pp. 5-24, 2013.
- [15] Javad Vazifehdan, Venkatesha Prasad, I.G.M.M. Niemegeers, Energy-Efficient Reliable Routing Considering Residual Energy in Wireless Ad Hoc Networks, IEEE Transaction on Mobile Computing, pp. 434 - 447, 2014.
- [16] Huaizhou Shi, R. Venkatesha Prasad, E. Onur, Ignas Niemegeers, "A Distributed Lifetime Guaranteed Mechanism in Cooperative Personal Network", *Elsevier Computers & Electrical Engineering*, 2013.
- [17] Javad Vazifehdan and R. Venkatesha Prasad and Ignas Niemegeers, "On the lifetime of node-to-node communication in wireless ad hoc networks", *Elsevier Computer Networks*, Vol. 56 (6), pp. 1685 - 1709, 2012.
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