

Dr.R.MUTHUKKUMAR

Associate Professor & Deputy COE
Department of Information Technology
National Engineering College
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Education

Ph.D

August 2018

Area of Research: Cognitive Radio Ad Hoc Networks
Anna University, Chennai

M.E

May 2011

Computer Science and Engineering
Manonmaniam Sundaranar University, Tirunelveli

B.TECH

April 2005

Information Technology
Anna University, Chennai

Experience

13 years & 1 month

Lecturer

01.06.2006 to 31.10.2011
(5 Years & 4 Months)

@ National Engineering College

Assistant Professor

01.11.2011 to 05.08.2012
(9 Months)

@ National Engineering College

Assistant Professor (Senior Grade)

06.08.2012 to 14.07.2019
(6 Years & 10 Months)

@ National Engineering College

Associate Professor

15.07.2019 to till date

@ National Engineering College

Specific Achievement

- Recognized as Supervisor (Ref.No. **3340019**) in the Faculty of Information and Communication Engineering at Anna University, Chennai.
- Recognized as SILVER partner faculty under Inspire (2017) – The Campus Connect Faculty Partnership Model by Infosys Limited, Chennai.
- Recognized as BRONZE partner faculty under Inspire (2016) – The Campus Connect Faculty Partnership Model by Infosys Limited, Chennai.
- Reviewed papers for the journals on Computers and Electrical Engineering (Elsevier) and IEEE Access.

Subject Taught

- Data Structures and Algorithms
- Algorithm Analysis and Design
- Computer Networks
- Internet and Web Technology
- Network Programming and Management
- Cryptography and Network Security
- Software Engineering
- Wireless Networks
- Cyber Forensics
- Internet of Things
- Cyber Laws and Security Policies
- Information Security and Cryptography

Publications

International Journal: 06

- **R. Muthukkumar**, D. Manimegalai, “*Enhancing cooperative spectrum sensing in cognitive radio ad hoc networks using priority-based two-stage detection model*”, Wireless Networks (Springer), November 2018, vol. 24, no. 8, pp 3295–3307, IF. 2.405.
- **R. Muthukkumar**, D. Manimegalai, “*Enhanced Cooperative Spectrum Sensing in CRAHNs Using Distributed Dynamic Load-Balanced Clustering Scheme*”, Wireless Personal Communications (Springer), vol. 94, no. 4, 2017, pp. 2513–2531, IF. 0.929.
- R. Muthukkumar, D. Manimegalai, V. Sideshwari, “*Energy Efficient Cooperative Spectrum Sensing Using Entropy Based Detector In Cognitive Radio Networks*”, International Journal of Applied Engineering Research (IJAER), 2015, vol. 10, no. 20, pp. 2513–2531.

- **R. Muthukkumar**, D. Manimegalai, A. Siva Santhiya, “*Detecting Selfish Attack in Cognitive Radio Networks Using Game-Theoretic Approach*”, International Journal of Applied Engineering Research (IJAER), vol. 10, no. 20, 2015, pp. 2513–2531.
- **R. Muthukkumar**, N. Shanthi, T. Kumar, “*Review of Mobility Aware Clustering Scheme in Mobile Adhoc Network*”, International Journal of Computer Applications (IJCA), vol. ICRTCT, no. 1, 2013, pp. 19-24.
- **R. Muthukkumar**, N. Shanthi, T. Kumar, “*A Survey of Mobility Prediction Schemes in MANET*”, International Journal of Engineering and Technology (IJET), vol. 5, no. 4S, 2013, pp. 131-137.

International Conferences: 08

- **R. Muthukkumar**, G. Murugeswari, “*Flow State Mechanism of Trust based DSR in MANET*”, in: Proceedings of the, International Conference on Recent Advancements in Computing Technology (ICRACT), 2011, pp. 56-62.
- **R. Muthukkumar**, G. Sivakumar, S. Vimal, “*An Efficient Communication Using Biometric Based Authentication and Intrusion Detection in MANET*”, in: Proceedings of the, International Conference on Emerging Trends in Computer and Communication Technology (ICETCCT), pp. 77, 2012.
- **R. Muthukkumar**, D. Eswari, “*Enhanced Routing Protocol in MANET*”, in: Proceedings of the, International Conference on Emerging Trends in Computer and Communication Technology, pp. 57, 2012.
- **R. Muthukkumar**, N. Shanthi, T. Kumar, “*Review of Mobility Aware Clustering Scheme in Mobile Adhoc Network*”, in: Proceedings of the, International Conference on Research Trends in Computer Technologies (ICRTCT), pp. 258-265, 2013.
- **R. Muthukkumar**, G. BanuPriya, M. Fathima Rizwana, “*Topology Controlled Energy Efficiency in Cooperative Adhoc Networks through Energy spanners*”, in: Proceedings of the, International Conference on Innovations in Electronics, Communication and Computing (ICIECC’14), pp. 263-268, 2014.
- **R. Muthukkumar**, D. Manimegalai, V. Sideshwari, “*Energy Efficient Cooperative Spectrum Sensing Using Entropy Based Detector In Cognitive Radio Networks*”, in: Proceedings of the, IEEE Sponsored 2nd International Conference on Innovations in Information, Embedded and Communication systems (ICIIECS), 2015.
- **R. Muthukkumar**, D. Manimegalai, A. Siva Santhiya, “*Detecting Selfish Attack in Cognitive Radio Networks Using Game-Theoretic Approach*”, in: Proceedings of the, IEEE Sponsored 2nd International Conference on Innovations in Information, Embedded and Communication systems (ICIIECS), 2015.
- **R. Muthukkumar**, D. Manimegalai, A. Siva Santhiya, “*Game-Theoretic Approach to Detect Selfish Attacker in Cognitive Radio Ad-Hoc Networks*”, in: Proceedings of the,

International Conference on Signal Processing, Communication and Networking (ICSCN), 2015.

- **R. Muthukkumar**, “*Internet of Things (IoT): Smart Home for Crippled Persons*”, International Conference on Applied Soft Computing Techniques (ICASCT’18), 2018.
- **R. Muthukkumar**, “*Earthquake Detection Using Adagrad LSTM Network*”, International Conference on Science, Technology, Engineering and Management (ICSTEM’18), 2018.

National Conferences: 06

- **R. Muthukkumar**, G. Murugeswari, “*Security Considerations for Trust –Based DSR in MANET*”, in: Proceedings of the, National Conference on Emerging Trends in Computing Technologies, pp. 4, 2011.
- **R.Muthukkumar**, D. Eswari, “*Enhanced Routing Protocol with Route-Handoff in MANET*”, in: Proceedings of the, National Conference on Emerging Trends In Information & Communication, pp. 1-6, 2012.
- **R.Muthukkumar**, M. Gangadharan, “*ACRN: Adaptive Control Channel for Adhoc Cognitive Radio Networks*”, in: Proceedings of the, National Conference on Emerging Trends in Computer Science and Engineering (ETICSE), 2013.
- **R. Muthukkumar**, D. Manimegalai, G. BanuPriya, M. Fathima Rizwana, “*Energy Efficient Topology Control In Wireless Adhoc Networks Using Cooperative Communication with Energy Spanner*”, in: Proceedings of the, Proceedings of National Conference on Computer Technology (ViSiON’14), 2014.
- **R. Muthukkumar**, D. Manimegalai, V. Sideshwari, , “*Enhancing Energy Efficient Cooperative Spectrum Sensing in Cognitive Radio Networks*”, in: Proceedings of the, National Conference on Frontiers in Applied Sciences and Computer Technology (FACT’15), vol.03, pp. 170-175, 2015.
- **R. Muthukkumar**, D. Manimegalai, A. Siva Santhiya, “*A Novel Scheme for detecting Selfish Users in Cognitive Radio Ad Hoc Networks Using Game-Theoretical Approach*”, in: Proceedings of the, National Conference on Frontiers in Applied Sciences and Computer Technology (FACT’15), vol.03, pp. 176-181, 2015.

Academic Achievements

Short term Courses / FDP/Seminars / Conference/ Workshops organized:

- AICTE Sponsored SDP on “*Network Programming and Management*” from 07.06.2010 to 12.06.2010.

- Anna University, Chennai Sponsored Placement Training programme on “*IT Finishing School Programme*” for final year SC/ST students from 06.07.2010 to 12.09.2010.
- BRNS Sponsored National Level Conference on “*Explorations and iNnovations In Advanced Computing (ENIAC)*” on 16.09.2011.
- Workshop on “*Education and Career Planning*” for +2 Students from 05.11.2011 to 06.11.2011.
- CISCO Academy Meet on “*Emerging Trends In Green Networking Technologies*” Sponsored by CISCO Systems on 08.03.2013.
- Two Days Hands on training and workshop on “*Network Simulator – NS2*” from 04.10.2013 to 05.10.2013.
- Two Days Hands on training and workshop on “*Network Simulator – NS2*” from 26.09.2014 to 27.09.2014.

Number of Seminar / Workshop attended: 22

S.No	Name of the Programme	Category	Dates	Venue
1.	UGC Sponsored - Exam Reforms	Workshop	18.05.2019 – 19.05.2019	University of Hyderabad, Hyderabad
2.	AICTE Sponsored – Exam Reforms	Workshop	07.05.2019	PSG College of Technology, Coimbatore
3.	IET sponsored IoT India Congress	Workshop	09.10.2018 – 10.10.2018	NIMHANS Convention Centre, Bengaluru
4.	National Cyber Defence Summit	Workshop	30.09.2016 01.10.2016	Anna University, Chennai
5.	National Teachers’ Congress	Workshop	23.09.2016 – 25.09.2016	Maharashtra Institute of Technology, Pune
6.	Formulation of Research and Development Grant Proposals by Scientists and Technologies	Workshop	18.11.2015 – 20.11.2015	National Engineering College, Kovilpatti
7.	Research Approaches and Contemporary Issues of Functional Genomics, Proteomics & Micro array biological Modeling using machine Learning in Bioinformatics Application	Seminar	13.11.2104 – 14.11.2014	National Engineering College, Kovilpatti

S.No	Name of the Programme	Category	Dates	Venue
8.	Training of Evaluators/Resource Persons on Outcome Based Accreditation Phase I and II	Workshop	05.03.2014 14.03.2014 – 16.03.2014	National Engineering College, Kovilpatti
9.	Research Challenge in Cooperative Communication and Cognitive Radio Networks	Seminar	11.11.2013	PSG College of Technology, Coimbatore
10.	Network Simulator (NS-2) for Wireless Networks	Workshop	28.09.2012 – 29.09.2012	SONA College of Technology, Salem
11.	Recent Networking Technology Trends	Workshop	29.03.2012 – 30.03.2012	B.S.Abdur Rahman University, Chennai
12.	EMC ² Academic Summit	Workshop	04.02.2011 – 05.02.2011	SRM University, Chennai
13.	Research Issues in Wearable Computing	Seminar	28.01.2011 – 29.01.2011	National Engineering College, Kovilpatti
14.	Network Simulator -2	Workshop	22.10.2010	Kamaraj College of Engineering and Technology, Virudhunagar
15.	Free Open Source Software (FOSS)	Workshop	29.09.2010 – 30.09.2010	Mepco Shelenk Engineering College, Sivakasi
16.	IT Finishing School Programme for SC/ST Students for Engineering	Workshop	14.04.2010 – 18.04.2010	KSR College of Technology, Thiruchengode
17.	Grid Computing	Workshop	25.05.2009 – 27.05.2009	National Engineering College, Kovilpatti
18.	Autonomic Computing	Seminar	01.08.2008 – 02.08.2008	National Engineering College, Kovilpatti
19.	Recent methods & tools for design of fault tolerant systems for Wireless Networks	Seminar	02.08.2007 – 03.08.2007	National Engineering College, Kovilpatti
20.	Pervasive Computing	Seminar	20.04.2007 – 21.04.2007	National Engineering College, Kovilpatti

S.No	Name of the Programme	Category	Dates	Venue
21.	Software Quality Management	Seminar	09.02.2207 – 10.02.2007	National Engineering College, Kovilpatti
22.	Knowledge Engineering	Seminar	05.01.2007 – 06.01.2007	National Engineering College, Kovilpatti
23.	Foundation of Middleware Technologies	Workshop	21.09.2006 – 23.09.2006	Thiyagarajar College of Engineering, Madurai.

No. of FDP/Industrial Training/Courses Attended: 11

S.No	Name of the Programme	Category	Dates	Venue
1.	Internet of Things	FDP	18.06.2018 – 22.06.2018	NIT, Warangal
2.	Data Science Research and Big data Analytics	FDP	11.12.2017 – 23.12.2017	National Engineering College, Kovilpatti
3.	Android App development and Web development using PHP, .Net	Industrial Training	16.06.2017 – 18.06.2017	Tekinit Solutions, Chennai
4.	Technology Enabled Teaching Learning Process	FDP	27.05.2017 – 29.05.2017	NITTTR, Chennai
5.	Tools for Cyber Security: A Laboratory Course	Short Term Course	22.05.2017 – 26.05.2017	IIT, Bombay
6.	Pedagogy for Effective use of ICT in Engineering Education	STTP	08.01.2015 – 31.01.2015	Regional Centre of Anna University, Tirunelveli.
7.	Empowering Indian Engineering Education for Global Expectations	ISTE Annual Convention	07.11.2014 – 08.11.2014	National Engineering College, Kovilpatti
8.	Cisco Networking Academy Instructor Training Program on CCNA 3 & 4	Industrial Training	29.11.2011 – 08.12.2011	VIT University, Chennai

S.No	Name of the Programme	Category	Dates	Venue
9.	Web engineering & e-biz solutions J2EE Vs .Net	SDP	26.11.2007 – 08.12.2007	Mepco Shelenk Engineering College, Sivakasi
10.	J2EE & Websphere Admin	FDP	09.08.2007 – 10.08.2007	Bannari Amman Institute of Technology, Sathyamangalam
11.	Visual Programming	FDP	13.11.2006 – 25.11.2006	Mepco Shelenk Engineering College, Sivakasi

Expert Lectures Delivered

- ❖ Resource Person in SDP on “*Network Programming and Management*” at National Engineering College, Kovilpatti on 10 June, 2010.
- ❖ Resource Person in Workshop on “*Network Simulator – NS2*” at National Engineering College, Kovilpatti on 4-5 October, 2013.
- ❖ Resource Person in Workshop on “*Network Simulator – NS2*” at National Engineering College, Kovilpatti on 26-27 September, 2014.
- ❖ Resource Person in IEEE Student branch Workshop on “*Network Simulator – NS2*” at National Engineering College, Kovilpatti on 01 August, 2015.
- ❖ Resource Person in FDP on “*Web Programming*” at National Engineering College, Kovilpatti on 8 June, 2016.
- ❖ Resource Person in FDP on “*Problem Solving and Python Programming*” at National Engineering College, Kovilpatti on 9 June, 2018.

Membership

- Lifetime member in Indian Society for Technical Education (ISTE).
- Member in Computer Science Teachers Association (CSTA).