

PROFILE



Dr.Ch. Balaswamy

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Professor,

Department of Electronics and Communication Engineering,
Sheshadri Rao Gudlavalleru Engineering College, Gudlavalleru-521356

Academic Details:

Degree	Branch	Year of passing	Institute	University	Percentage
Ph.D (Communication Engineering)	ECE	May 2010	J.N.T.U. College of Engineering, Anantapur	Jawaharlal Nehru Technological University, Anantapur	61.5% in Pre-Ph.D Exam
M.Tech (Computer Applications in Industrial Drives)	ECE	Nov 2001	Malnad College of Engg., Hassan, Karnataka	Visveswaraiah Technological University, Belgaum	78%
B.E in Electronics and Communication Engineering	ECE	May 1998	S.R.K.R. Engineering College, Bhimavaram, A.P	Andhra University	63%
Diploma in Electronics and Communication Engineering	ECE	Nov 1994	GMR Polytechnic, Gajwel, Medak District, A.P.	State Board of Technical Education & Training, Hyderabad	70%
School Secondary Education	-	March 1989	S.P.H. School Srisailam Dam West, A.P.	Board of Secondary Education, A.P	63%

Total Experience: 23 years and 10 months

1) Teaching Experience: 23 Years and 1 month

S.No.	Name of the Institute	Designation	Experience	Duration
1	Sheshadri Rao Gudlavalleru Engineering College, Gudlavalleru	Professor, R&D Adviser, & ARIIA Coordinator	6 years and 8 months	01.06.2018 to till date
2	QIS College of Engineering & Technology, Ongole	Professor, HOD & Vice Principal	3 years and 9 months	25.09.2014 - 30.04.2018
3	QIS College of Engg.& Technology, Ongole	Professor, HOD	4 years and 3 months	16.06.2010 - 24.09.2014
4	Laki Reddy Bali Reddy College of Eng, Mylavaram	Assoc. Professor	4 years and 10 months	01.08.2005 – 10.06.2010
5	Vignan's Engg.College, Guntur	Asst. Professor	1 year and 9 months	10.11.2003 – 30.07.2005
6	QIS College of Engineering & Technology, Ongole	Asst. Professor	1 year and 4 months	1.07.2002 – 5.11.2003

2) Industrial Experience: 9 Months

S.No.	Name of the Organization	Designation	Duration
1	Nuntius Systems (I) Pvt. Ltd.,	Software Engineer	10.04.2001 – 10.01.2002

Ph.D Guided:

S.No .	Name of the student	Registration Number	Year of Registration	Name of the University	Year of Completion
1	Dr.J. Ravi Chander	11PH0403	2011	JNTUA, Anantapur	2017
2	Dr.P.Venkat Rao	15022P0426	2015	JNTUK, Kakinada	2022
3	K.C.K.Naik	13PH0429	2013	JNTUA, Anantapur	2022

Ph.D guidance under progress:

S.No.	Name of the student	Year of Registration	Name of the University	Status
1	V. Jai Kumar	2012	JNTUA, Anantapur	Under progress
2	Smt. Srivalli	2015	JNTUK, Kakinada	Under progress

AICTE Projects & Funding:

- **Acted as coordinator** for the AICTE sponsored One week - Short Term Training Program on Block chain Architecture Design and Use Cases – Phase-I during 10th Aug 2020 to 15th Aug 2020. Grant sanctioned Rs.93000/- **34-65/208/RIFD/STTP/Policy-1/2018-19, Dated 21/2/2020**
- **Acted as coordinator** for the AICTE sponsored One week - Short Term Training Program on Block chain Architecture Design and Use Cases – Phase II during 17th Aug 2020 to 22nd Aug 2020. Grant sanctioned Rs.93000/- **34-65/208/RIFD/STTP/Policy-1/2018-19, Dated 21/2/2020**
- **Acted as coordinator** for the AICTE sponsored One week - Short Term Training Program on Block chain Architecture Design and Use Cases – Phase III during 24th Aug 2020 to 29th Aug 2020. Grant sanctioned Rs.93000/- **34-65/208/RIFD/STTP/Policy-1/2018-19, Dated 21/2/2020**
- Acted as **Chief Coordinator** for the (Modernization and Removal of Obsolescence Scheme (MODROBS) and a Grant-in-Aid of **Rs. 5,28,000/-** released from AICTE, New Delhi for the financial year 2012-13 to update and modernize the Microprocessors and Microcontrollers Lab. (**Ref. No: 12/AICTE/RIFD/MOD(Policy-3) Pvt-97/2012-13; dated 02.03.2013**).

- Acted as **Coordinator** for the **International Conference** on “Communications and Signal Processing” conducted during 2nd to 4th, April 2012. AICTE sanctioned grant-in-aid towards the seminar grant of Rs.75,000/-. (**Ref. No. RIFD/SEM/093/2011/12, dated on 06.08.2012**)

Merit Incentives:

- Ratified as **Professor** by **JNTUK University**, Kakinada in the year **2013**.
- Acting as **Head of the Department** since 8 years and got the ECE department
 - Accredited twice by **NBA (Outcome Based Education)** and having exposure to Outcome-Based Education.
 - Got **NAAC-A grade** for the QIS College of Engineering and Technology in the period of working as Head of the Department.
 - Got **Autonomous status** for the QIS College of Engineering and Technology in the period of working as Head of the Department.
 - The department of ECE has been recognized as **Research Center** by JNTUK University, Kakinada.
- Acting as **Chairman for Board of Studies**, ECE Department, QIS College of Engineering and Technology, Ongole
- Acting as Member, Board of Studies, ECE department, Gudlavalleru Engineering College, Gudlavalleru
- **GATE–1998** Qualified with 62.13 percentile.
- **Awarded the Merit Prize** for having secured **highest marks** in Elective-I and **Highest Scorer in I-M.Tech** during March 2000 examination.
- Got **University Second rank in II-M.Tech**.
- **Best paper** award at NCSCA-07, National Conference, Visakhapatnam.

Technical Skills :

Assembly level languages	8086, 8051
High Level Languages	Python
Simulator	NS2
Interested subjects	Cellular Mobile Communication Microprocessors & Microcontrollers, Microprocessors & Interfacing, Microprocessors, Microcontrollers and its applications, Computer Architecture and Organization, Digital Circuits Computer Networks Electronic Measurements and Instrumentation Radar Engineering

Membership:

- Life member of SLT (Society for Learning Technologies): No: LM474
- Life member of ISTE; No. LM74524
- Member of International Association of Engineers (IAENG); Member ship number: 125670
- Member of International Association of Engineers and Scientists (IAEST); Member ship number: 01304870

International Journals: 49

SCI: 1

- 1) Venkat Rao Pasupuleti, Chinthaguntla Balaswamy, “Optimized routing and compressive sensing-based data communication in wireless sensor network”, *IET Communications*, ISSN, 1752-8628, Pages:1-12, Jan 2020, [SCI], doi: 10.1049/iet-com.2019.0130

SCI-E: 1

- 1) Ch.Balaswamy et.al., “An intelligent wearable embedded architecture for stress detection and psychological behavior monitoring using heart rate variability”, *Journal of Intelligent & Fuzzy Systems*, DOI:10.3233/JIFS-233791, indexed in SCI-E, Impact Factor 2, 30th, August, 2023, pp.1-14.

ESCI: 2

- 1) Ch.Balaswamy et.al., “Combination of Adaptive Neuro Fuzzy Inference System and Machine Learning Algorithm for Recognition of Human Facial Expressions” *International Journal of Advanced Computer Science and Applications (IJACSA)*; DOI: 10.14569/IJACSA.2023.0140683, Vo.14, No.6, 2023, Indexed in **ESCI and Scopus**, Impact Factor 0.9.
- 2) Ch.Balaswamy et.al., “An Overview of Vision Transformers for Image Processing: A Survey”, *International Journal of Advanced Computer Science and Applications (IJACSA)*, DOI: 10.14569/issn.2156-5570, Vo.14, No.6, 2023, Indexed in **ESCI and Scopus**, Impact Factor 0.9.

SCOPUS: 12

- 1) Kanavath Chinna Kullayappa Naik, Chintaguntla Balaswamy, Patil Ramana Reddy, “Minimum energy consumption selection decode and forward routing protocol”, *Indian Journal of Radio and Space Physics*, Vol. 50, June 2021, pp.84-89. [SCOPUS]
URL: <http://nopr.niscpr.res.in/bitstream/123456789/58756/1/IJRSP%20Vol.50%282%29%2084-89.pdf>
- 2) K.C.Kullayappa Naik, Ch.Balaswamy, D.Prabhakar, Sowjanya Kandula, Shabhana Begum, “Performance of Various Ad Hoc Routing Protocols Using NS-3 Simulator”, *Annals of the Romanian Society for Cell Biology*, May 2021: Volume 25: Issue 5, pages: 133-138, ISSN:1583-6258, h-index: 7, impact factor: 0.90 [SCOPUS]
Link: <https://www.annalsofrscb.ro/index.php/journal/article/view/4264>
- 3) Venkat Rao Pasupuleti, Ch. Balaswamy, “Performance Analysis of Fractional Earthworm Optimization Algorithm for Optimal Routing in Wireless Sensor Networks”, *EAI Endorsed*

- 4) Venkat Rao Pasupuleti, Chinthaguntla Balaswamy, “Efficient Cluster Head Selection and Optimized Routing in Wireless Sensor Networks Using Bio-inspired Earthworm Optimization Algorithm”, *Journal of Advanced Research in Dynamical and Control Systems*, Vol.11, 12-Special Issue, Nov 2019, Pages:372-382, ISSN 1943-023X, [SCOPUS] doi:10-5373/JARDCS/V11SP12/20193233
- 5) P. Venkat Rao, Ch. Balaswamy, “Integration of Compressive sensing and clustering in wireless sensor networks using block tri-diagonal matrix approach”, *International Journal of Engineering and Advanced Technology (IJEAT)*, ISSN:2249-8958, Volume-8, Issue-6S2, August 2019, DOI:10.35940/ijeat.F1220.0886S219, pg:901-906, Scopus indexed, Impact Factor:5.97
- 6) K. C. Kullayappa Naik, Ch. Balaswamy, P. Ramana Reddy, “Performance of AODV and OLSR Protocols with Different Mobility Models”, *International Journal of Recent Technology and Engineering (IJRTE)*, ISSN: 2277-3878, Volume-8 Issue-2, July 2019, pg:4775-4778 [SCOPUS, Impact Factor: 5.92] doi: 10.35940/ijrte.B1938.078219fle
Retrieval Number: B1938078219/19©BEIESP
<https://www.ijrte.org/wp-content/uploads/papers/v8i2/B1938078219.pdf>
- 7) D. Prabhakar, Ch. Balaswamy, M. Akhil Poorvika, M. Venkata Krishna Sai, M. Subba Naidu, “Flexible Microstrip Patch Antenna using Different Substrates for Bio- Medical Applications”, *International Journal of Innovative Technology and Exploring Engineering (IJITEE,)* ISSN: 2278-3075, Volume-8 Issue-7 May, 2019, pg:1350-1352. [SCOPUS, Impact Factor: 5.54]
<https://www.ijitee.org/wp-content/uploads/papers/v8i7/F3752048619.pdf>
- 8) V.Jai Kumar, Ch.Balaswamy, K.Soundararajan, “Cross layered based Adaptive Secured Routing and Data transmission in MANET” *International Journal of Mobile Network Design and Innovation, a Scopus Indexed Journal*, Vol.9, Issue 1, 28th Feb, 2019, H-Index:10; pg. 37-45. [SCOPUS. H.Index:10] DOI: 10.1504/IJMNDI.2019.10019615
<http://www.inderscience.com/storage/f873212101956114.pdf>
- 9) V.Jai Kumar, Ch.Balaswamy, K.Soundararajan, “CBC-TBCLA:trust Based Cross Layer Approach for Secure Routing Protocol in MANET”, *International Journal of Advanced Research in Dynamical and Control Systems*, Issue 15, Special Issue, December, 2018, ISSN 1943-023X, Pg.583-593. [SCOPUS]
- 10) K.C.Kullayappa Naik, Ch.Balaswamy, P.Ramana Reddy, “Performance Evaluation of Stochastic Mobility Model and Trace based Mobility Model for MANETs”, *Journal of Advanced Research in Dynamical & Control Systems, a Scopus Indexed Journal*, ISSN 1943-023X; Vol.10, Issue 15, November, 2018, Pg 479-484. [SCOPUS]
- 11) V.Jai Kumar, Ch.Balaswamy, K. Soundararajan, “An Efficient Optimization Based Cross Layer Approach to Enhance the Security of MANET”, *International Journal of Pure and Applied Mathematics, a Scopus Indexed Journal*, Vol 118, Issue 24, May 2018, ISSN:1314-3395 (on line version); pg.1-18. [SCOPUS]
- 12) K.C.Kullayappa Naik, Ch.Balaswamy, “Lifetime Enhancement of AODV Routing Protocol for Homogeneous and Heterogeneous MANETs”, *International Journal of Pure and Applied*

UGC Recognized: 1

- 1) P. Venkata Rao, Ch.Balaswamy, “A Review for Compressive Sensing (CS) Scheme in Cluster Based Wireless Sensor Network”, *International Journal of Applied Engineering Research ISSN 0973-4562 Volume 13, No. 8, Nov. 2018, pp. 6118-6124 © Research India Publications. <http://www.ripublication.com> [UGC Approved Journal]*

Other: 32

- 1) Jai Kumar Vinayagam, Ch.Balaswamy, K.Soundararajan, “Multicast Routing Protocol to detect malicious node in MANET with Cross layer selection algorithm”, *International Journal of Advanced Research Trends in Engineering and Technology (IJARTET) Vol.5, Special Issue 3, January 2018, ISSN 2394-3777(Print), ISSN 2394-3785 (Online).pg. 390-397.*
- 2) Kovi Mounika, Ch.Balaswamy, “Smart Blood Banking Server using Raspberry Pi”, *International Journal for technological Research in Engineering, Volume 4, Issue 10, June-2017, ISSN (Online):2347-4718, pg.2059-2061. Impact factor: 4.62*
- 3) Thanikonda Madhavi, Ch.Balaswamy, “Secure and Reliable Routing Protocols in Multi-hop Wireless Networks using MANET”, *International Journal of Engineering Science Innovation Research & Development, Vol. 4. Issue 3, September 2017, E-ISSN: 2349-6185; pg.121-129. Impact factor:4.166.*
- 4) G.Narendra Sai Ch.Balaswamy, B.Malleswari, “Remote Patient Health Care Monitoring over Internet”, *International Journal for technological Research in engineering, Volume 4, Issue 10, June-2017. ISSN (Online): 2347-4718; pg.2011-2015. Impact factor: 4.62*
- 5) Tadiseti Lavanya, M.Koteswara Rao, Ch.Balaswamy, “An Improved Wireless Sensor Network based on Intelligent Universal Remote Control System for Home Appliances”, *International Journal for Technological Research in Engineering, Volume4, Issue 11, July 2017; ISSN(Online): 2347-4718; pg.2490-2493, Impact factor: 4.62*
- 6) Pagadala Venkata Subba Reddy, Y.V.Bhaskar Reddy, Ch.Balaswamy, “Performance Evaluation of Data Offloading Approaches for Mobile Social Networks”, *International Journal of Engineering Science Invention, ISSN (Online):2319-6734, ISSN (Print):2319-6726, Volume 6 Issue 10, October 2017, PP.58-66. Impact factor: 5.962*
- 7) Lellapalli Sridhar, B.Malleswari, Ch.Balaswamy, “Design and development of power management in intelligent buildings with smart monitoring and controlling system”, *International Journal for technological Research in engineering, Volume 4, Issue 10, June-2017. ISSN (Online): 2347-4718; pg.2055-2058, Impact factor: 4.62*
- 8) S.Ramadevi, I Venu Gopal, Ch.Balaswamy, “An automated Flood and Earthquakes Sensing Wireless Sensor Network Alert System”, *International Journal for technological Research in engineering, Volume 4, Issue 10, June-2017. ISSN (Online): 2347-4718; pg.2052-2054, Impact factor: 4.62*
- 9) P.Venkata Yamuna, I. Venu Gopal, Ch.Balaswamy, “Mobile Robot with WIFI based Communication for Refinery Inspection”, *International Journal for Technological Research in Engineering, Volume 4, Issue 10, June-2017. ISSN (Online): 2347-4718; pg.2025-2028, Impact factor: 4.62*
- 10) K.C.Kullayappa Naik, Madala Lakshmi Durga, Ch.Balaswamy, “Efficient Resource Allocation in VANET”, *International Journal of Engineering Science Invention, ISSN (Online): 2319-6734, ISSN (Print):2319-6726, Volume 6, Issue 10, October 2017, PP.48-57. Impact factor: 5.962*
- 11) Shaik Harika, Ch.Balaswamy, K.C.Kullayappa Naik, “Study and Design of always an alternate route available protocol for MANET”, *International Journal of Engineering*

- 12) Ravichander Janapati, Ch. Balaswamy, K.Soundararajan, "Enhancement of Indoor Localization in WSN using PSO tuned EKF", *International Journal of Intelligent Systems and Applications (IJISA)*, 2017, MECS publishers, Vol.8. **Hongkong** ISSN:2074-904X(Print), ISSN: 2074-9058 (Online), DOI: 10.5815/ijisa (The impact factor (IF) =0.10 ISI Web of Knowledge), pg.10-17
- 13) Ravichander Janapati, Ch. Balaswamy, K.Soundararajan, "Indoor localization of cooperative WSN using PSO assisted AKF with optimum references" published in ***Elsevier Procedia Computer Science*** at **IIMT Bhubaneswar (Scopus indexed)**, Vol.92, Pg. 282-291, Jan, 2016, doi: 10.1016/j.procs.2016.07.357
- 14) N Chinna Babu, V.Jai Kumar, Dr.Ch.Balaswamy, T.Gowri Kishore, "A Novel Routing Protocol based on Periodic Route Discovery for Mobile Adhoc Networks", *International Journal of Engineering Research and Applications*, ISSN:2248-9622, Vol.6, Issue 12, (Part-4), December 2016, pp.74-81, Impact factor: 5.179
- 15) Ravichander Janapati, Ch. Balaswamy, K.Soundararajan "Localization of WSN using Distributed Particle Swarm Optimization algorithm with precise references" in *Journal of Communications Technology, Electronics and Computer Science*, Vol. 7, 2016 ISSN 2457-905X DOI: **10.22385**, Springer.
- 16) Ravichander Janapati, Ch. Balaswamy, K.Soundararajan "Localization of Cooperative WSN using Distributed PSO with Optimum References", *International Journal of Electrical and Computer Engineering (IJECE)* Vol.6, No.6, December 2016, ISSN:2088-8708, DOI: 10.11591/ijece.v6i6-11427, Pg.3094-3102.
- 17) V.Jigisha, Ch.Sudersan Raju, Dr.Ch.Balaswamy, "The comparison between OLSR and AODV routing protocols for Vehicular Adhoc Networks", *International Journal of Advanced Research in computer and Communication Engineering*, (Impact factor 2.117) Volume 4, Issue 3, March 2015, PP:467-470, DOI 10.17148/IJARC015.43112.
- 18) V. Sravani, K.C.K.Naik, Ch.Balaswamy, "A Novel routing protocol based on multipath routing for mobile adhoc networks", *International Journal of Advanced Research in Computer and Communication Engineering*, Vol. 3, Issue 12, December 2014, PP: 8732-8737, ISSN (Online) : 2278-1021 ISSN (Print): 2319-5940, DOI 10.17148/IJARCCE.
- 19) P.Gowrisankar, N.Srinivasulu, Dr.Ch.Balaswamy, "Design and Implementation of Black-hole Attacks in AODV Routing Protocol for Mobile Ad-hoc Networks, "*International Journal of Advanced Research in Computer and Communication Engineering IJARCCE*, Vol.2, issue 12, PP:4548-4553, December 2013, ISSN No.(Print): 2319-5940, ISSN No. (Online): 2278-1021.
- 20) T.Durgarao, N.Srinivasulu, K.C.K.Naik, Dr.Ch.Balaswamy, "Traffic Visualisation of Performance Metrics between Routing Protocols for MANETS", *International Journal of Engineering Research & Technology (IJERT)*, ISSN: 2278-018,1 Vol.2, Issue 10, pg.802-811, October – 2013.
- 21) S.Papireddy, N.Sriniasulu, Dr.Ch.Balaswamy, "Evolution of Performance Metrics between Routing Protocols for MANETS", *International Journal of Advanced Research in Computer and Communication Engineering*, ISSN (Print) : 2319-5940, ISSN (Online) : 2278-1021, pg. 3568-3574, Vol. 2, Issue 9, September 2013.
- 22) Sreekanth Vakati, Dr.Ch.Balaswamy, "Performance Analysis of Routing Protocols in Mobile Ad Hoc Networks", *International Journal of Advanced Research in Computer and*

- 23) Ch.Sudersan Raju, Dr.M.Sailaja, Dr.Ch.Balaswamy, "Adaptability of MANET Routing Protocols for VANETs", *International Journal of Advanced Research in Computer and Communication Engineering*, ISSN (Print) : 2319-5940, ISSN (Online) : 2278-1021, pg. 2823-2829, Vol. 2, Issue 7, July 2013. **(Impact Factor: 1.77)**.
- 24) K.Pranusha, A.Surekha, V.Srikanth, N.Srinivasulu, Dr.Ch.Balaswamy, "Performance Comparison of Proactive and Reactive Routing Protocols in MANET", *ITSI Transactions on Electrical and Electronics Engineering (ITSI-TEEE)*, 2013, Vol.1, Issue.3, pp.57-60, ISSN (PRINT): 2320-8945.
- 25) Dr.Ch.Balaswamy, A.Ashok Kumar, I.Venu Gopal, "The Improvement of QOS by using a Dynamic Distributed Routing Algorithm over OBS Networks", *International Journal of Advances in Soft Computing Technology*, Volume 2, Issue 2, July-Dec, 2012, pg.6-12, (ISSN: 2229-3515).
- 26) P.Saradha, Dr. Ch.Balaswamy, "Improving Image Data Hiding Capacity Scheme using Sudoku Puzzle in Color Images", *International Journal of Engineering Research and Applications (IJERA)*, Vol.2, Issue 3, May-June 2012, PP.2741-2744. (ISSN: 2248-9622)
- 27) Humaira Nishat, Dr.D.Srinivasa Rao, Dr.Ch.Balaswamy, "Energy Efficient Routing Protocols for Mobile Ad Hoc Networks", *International Journal of Computer Applications (0975-8887)*, Vol. 26, No.2, pg.1-4, July 2011.
- 28) Ch. Balaswamy, K.Naga Prakash, Ch.Hima Bindu, "An Energy Efficient Routing Protocol based on Periodic Route Discovery for Mobile Ad Hoc Networks" *International Journal of Next-Generation Networks (IJNGN) Vol.3, No.1, March 2011, Pg 45-51, DOI : 10.5121/ijngn.2011.3105*.
- 29) Dr.Ch.Balaswamy, J.Ravi Chandar, E.Kumara Swamy, "SVD Based robust Blind Video Watermarking Algorithm", *International Journal of Information Technology Engineering & Sciences (IJITES)*, June 2011, Vol.1, Nos: 1, pp:25-29.
- 30) Ch. Balaswamy, Dr. K. Soundararajan, "A Novel Approach For Energy Efficient Routing in Mobile Ad Hoc Networks", *Research Journal of Engineering and Technology (An International Research Journal of Engineering Sciences and Technologies)*, March 2009, page:3-7.
- 31) Ch. Balaswamy, Dr. K. Soundararajan, "An Efficient Route Discovery Mechanism for Mobile Ad Hoc Networks", *IJCSNS International Journal of Computer Science and Network Security*, VOL.8 No.10, October 2008, page:25-32, Seoul, South Korea.[Web of Science] <https://www.webofscience.com/wos/woscc/full-record/WOS:000217172600004>
- 32) Ch. Balaswamy, Dr.K.Soundararajan, "Analysis of Table-driven and On-demand Routing Protocols for Mobile Ad Hoc Networks", *An International Research Journal of Higher Education, RIPPLES in Feb 2008, Vol.2, Issue.1, page:52-60*.

Web of Science:

- 1) V.Jaikumar, Ch.Balaswamy, K.Soundararajan, "Certain Investigation on MANET Security with Routing and Blackhole Attacks Detection", *International Conference on Recent Trends in Advanced Computing 2019, ICRTAC 2019, ScienceDirect, ELSEVIER, (Web of Science) Procedia Computer Science.11th -12th, Nov 2019 VIT Chennai*
DOI: 10.1504/IJMNDI.2019.10019615
<https://www.inderscience.com/info/inarticle.php?artid=98240>
- 2) J.Ravi Chander, Ch.Balaswamy, Dr. K.Soundararajan, "Enhanced Mechanism for Localization in Wireless Sensor Networks using PSO Assisted Extended Kalman Filter Algorithm (PSO-EKF)", *IEEE 2015 International Conference on Communication, Information & Computing Technology (ICCICT), Jan. 16-17, 2015, Mumbai, India, 978-1-4799-5522-0/15/\$31.00 ©2015 IEEE [IEEE International Conference] [Web of Science]*
<https://www.webofscience.com/wos/woscc/full-record/WOS:000380538100030>
- 3) Ravichander Janapati, Ch.Balaswamy, "Indoor Localization of Cooperative WSN using PSO Assisted AKF with Optimum References", *International Conference on Intelligent Computing, Communication & Convergence (ICCC-2016) held at IIMT, Bhuvanesar on 24th-25th, Jan 2016, pg. 282-291, (ELSEVIER) (Web of Science)*
<https://www.webofscience.com/wos/woscc/full-record/WOS:000383062700040>
DOI: 10.1016/j.procs.2016.07.357
- 4) Jai Kumar Vinayagam, Ch.Balaswamy, K.Soundararajan, "Adopting Cross Layer Approach for Detecting and Segregating Malicious Nodes in MANET", *IEEE International Conference on Signal Processing and Communication (ICSPC'17), IEEE Electron Devices Society, July 28th to 29th, July 2017, Karunya University, Coimbatore, pg. 457-461. [IEEE International Conference] [Web of Science]*
<https://www.webofscience.com/wos/woscc/full-record/WOS:000428725700088>
- 5) J.Ravi Chander, Ch.Balaswamy, K.Soundararajan, "Enhancement of localized routing using CDPSO in WSN", paper presented at *IEEE Conference conducted at KL University, Vijayawada on 4th, Jan 2018, pp:16-19. [IEEE International Conference] DOI: 10.1109/SPACES.2018.8316306; Web of Science*
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Scopus:

- 1) K.C.Kullayappa Naik, Ch.Balaswamy, P.Ramana Reddy, "Performance Evaluation of Stochastic Mobility Model and Trace based Mobility Model for MANETs", 019 IEEE International Conference on Electrical, Computer and Communication Technologies (ICECCT), 20-22 Feb. 2019 [SCOPUS]
DOI: [10.1109/ICECCT.2019.8869406](https://doi.org/10.1109/ICECCT.2019.8869406)
- 2) K.C.Kullayappa Naik, Ch.Balaswamy, "Performance Analysis of OLSR Routing Protocol for MANETs under Realistic Mobility Model", *IEEE International Conference on Electrical, Computer and Communication Technologies (IEEE ICECCT 2019) held at SVS College of Engineering, Coimbatore, Tamil Nadu, India, during 20-22, February 2019, Vol.3, Pg 1412-1416.[IEEE International Conference] & [SCOPUS]*
<https://ieeexplore.ieee.org/document/8869406>
DOI: [10.1109/ICECCT.2019.8869406](https://doi.org/10.1109/ICECCT.2019.8869406)

Springer:

- 1) K.C.Kullayappa Naik, Ch.Balaswamy, and Patil Ramana Reddy, “Maximizing Lifetime of Mobile Ad-Hoc Networks with Optimal Cooperative Routing”, *Lecture Notes in Electrical Engineering 735, Advances in Computing and Network Communications, Proceedings of CoCoNet 2020, Vol.1 [Springer]*
Link: https://doi.org/10.1007/978-981-33-6977-1_36
DOI: 10.1007/978-981-33-6977-1_36

Others:

- 1) Ch.Balaswamy et.al., “Multicast Routing Protocol to detect malicious node in MANET with Cross Layer Selection Algorithm”, *International Conference on Emerging Trends in Science & Technologies for Engineering Systems, ICETSTES-2018, 11th & 12th January 2018, S.J.C.Institute of Technology, Chickballapur, Karnataka, India, pg. 163-170.*
- 2) Ravichander Janapati, Ch. Balaswamy, K.Soundararajan and V.R Sarma, “Censored Localization for Cooperative WSN using Distributed PSO Algorithm” in *International Conference on Recent Trends in Engineering, Technology and science (ICRETS-2016)*, pp.1-7
- 3) Ravichander Janapati, Ch.Balaswamy, K.Soundararajan, “Network Centric collaborative navigation for target localization using PSO tuned UKF” *Proceedings of International Conference on Emerging Trends in Electronics & Telecommunications (ICETET) 29th - 31st May, 2015 KUALA LUMPUR, MALAYSIA (MTOEC046) ISSN (online): 2349-0020 ISSN (print): 2394-4544*
- 4) Ravichander Janapati, Ch. Balaswamy, K.Soundararajan, “Network Centric Localization Using Particle Swarm Optimization” at *International Conference of Communications and Signal Processing (ICCSP)*, QIS College of Engineering, Ongole, April 2014
- 5) Ravichander Janapati, Ch. Balaswamy, K.Soundararajan “Study of Localization Algorithms” Presented at *International Conference of Communications and Signal Processing (ICCSP)*, QIS College of Engineering, Ongole, 2nd & 3rd April 2013
- 6) K.Pranusha, A.Surekha, V.Srikanth, N.Srinivasulu, Dr.Ch.Balaswamy, “Performance Comparison of Proactive and Reactive Routing Protocols in Mobile Adhoc Networks”, at *International Conference on Latest Trends in Engineering & Technology (ICLTET) organized by Information Technology Society of India (IT Society of India) held at Tirupati on 27th, April 2013, ISSN (Print): 2320-8945, Vol.1, Issue.3, PP.57-60.*
- 7) N.Srinivasulu, Dr.Ch.Balaswamy, Dr.K.Soundararajan, “A Protocol on Routing based on periodic route discovery for adhoc networks”, *1st International Conference on Networks and Cyber Security held on January 5-6, 2012, SRK Institute of Technology, Vijayawada, pp:63-65.*
- 8) Dr.Ch.Balaswamy, Sk.Daria Saheb, P.Malyadri, N.Srinivasulu, “Performance Analysis between routing protocols for Mobile Adhoc Networks”, *International Conference on Electronics and Communication Engineering” organized by IRNet(India) held at Bangalore on 20th, May 2012.*
- 9) N.Naga Raja Kumari, Dr. Ch. Balaswamy, Dr.K.Soundararajan, N. Srinivasulu, “Energy Efficient Routing Protocol for Mobile Ad Hoc Networks”, *International Conference on Electronics and Communication Engineering ICECE-11, Hyderabad, India on 12th Nov., 2011.*
- 10) Ch. Sai Kalyana Deepthi, Dr.Ch.Balaswamy, Dr.K.Soundararajan, “A Protocol on Periodic Route Discovery for Ad hoc networks”, *International Conference on*

Electronics and Communication Engineering ICECE-11, Hyderabad, India on 12th Nov, 2011, PP 44-46.

- 11) Dr. Ch. Balaswamy, Dr. K. Soundararajan, C. Pavan Kumar, "Efficient Energy Saving Routing Protocol for Mobile Ad Hoc Networks", *International Conference on Advanced Computing & Communication Technologies for High Performance Applications, Cochin, Kerala, India, 24th to 26th September 2008.*

National Conferences: 3

- 1) Dr.Ch.Balaswamy, presented a paper in 2nd Annual National Conference on "Recent Advances in Power, Industrial Drives and Energy Evolutionary Technologies (RAPIDEET-2018)" during 20th & 21st, April 2018 organized by Department of Electrical & Electronics Engineering.
- 2) Dr.Ch.Balaswamy, presented a paper on "SVD Based Robust Blind Video Watermarking Algorithm", in the National Seminar on "IMPACT OF INFORMATION TECHNOLOGY ON RURAL INDIA" Sponsored by UGC in collaboration with Computer Society of India & ISRO, organized by the department of computer science & Applications, K.B.N. College, Vijayawada, Andhra Pradesh, India, on 8th & 9th July, 2011.
- 3) Ch. Balaswamy, Dr. K. Soundararajan, "Performance Comparison of Routing Protocols for Mobile Ad Hoc Networks", *NCSCA-07 held at Anil Neerukonda Institute of Technology & Sciences, Vishakapatnam, December 2007*

Papers presented at the Conferences: 6

- 1) Presented a paper entitled "Performance Analysis of OLSR Protocol for MANETs under Realistic Mobility Model" at *2019 Third IEEE International Conference on Electrical, Computer and Communication Technologies (IEEE ICECCT 2019) held at SVS College of Engineering, Coimbatore, Tamil Nadu, India, during 20-22, February 2019.*
- 2) Presented a paper entitled "Enhanced Mechanism for Localization in Wireless Sensor Networks using PSO Assisted Extended Kalman Filter Algorithm (PSO-EKF)" at *International Conference on Communication, Information & Computing Technology (ICCICT), Jan. 16-17, 2015 Mumbai, India, DOI:978-1-4799-5522-0/15/2015 IEEE*
- 3) Ravichander Janapati, Ch. Balaswamy, K.Soundararajan, Presented a paper on "Network Centric Collaborative Target Localization in MANET using particle Swarm Optimization" at the *3rd International Conference on Communication and Signal Processing ICCSP-2014 organized by the Department of Electronics and Communication Engineering, QIS College of Engineering and Technology, Ongole during 25th-27th, April 2014.*
- 4) Presented a paper entitled "Performance Comparison of Proactive and Reactive Routing Protocols in MANET" at *International Conference on Latest Trends in Engineering & Technology (ICLTET) held at Tirupati on 27th April, 2013.*
- 5) Ch. Balaswamy, Ravichander Janapati, K.Soundararajan "Study of Localization Algorithms" Presented at *International Conference on Communication and Signal Processing ICCSP-2013 ICCSP, QIS College of Engineering, Ongole, 2nd & 3rd April 2013*

- 6) Presented a paper on “SVD Based Robust Blind Video Watermarking Algorithm” in the National Seminar on “Impact of Information Technology on Rural India” sponsored by UGC in Collaboration with Computer Society of India & ISRO, Organized by the Department of Computer Science & Applications, K.B.N. College, Vijayawada, Andhra Pradesh, India, on 8th and 9th, July 2011.

NPTEL Courses: 1

1. Successfully completed **12 week** NPTEL Online certification course on “*Digital Circuits*” with a consolidated score of **85%** and stood in top 2% among the 2864 certified candidates, got ***Elite and Silver*** during July-Oct 2019.

Faculty Development Programme/Short term courses attended: 20

1. Participated in the Two-Week Refresher Course on “COMPUTER NETWORKS” organized by the Department of Compute Science and Engineering and Information Technology of Seshadri Rao Gudlavalleru Engineering College, Gudlavalleru from 18/07/2022 to 30/07/2022.
2. Participated in the One-week Faculty Development Programme on “*Unblocking Blockcahin Technology – Hands-on*” organized by Department of Computer Science and Engineering, B.S Abdur Rahman Crescent Institute of Science and Technology in association with ICT Academy from 28th February 2022 to 4th March 2022.
3. Participated in the One-week National level Intercollegiate Online Faculty Development Program on “*Outcome Based Education & Bloom’s Taxonomy*”, organized by the Internal Quality Assurance Cell of Ramakrishna Mission Vivekananda Centenary College (Autonomous), Kolkata in association with ipsr solutions limited from 8th Nov, 2021 to 15th Nov, 2021.
4. Participated in the one-week Faculty Development Programme on “Machine Learning Applications in Signal Processing” *Meity, Govt. of India, sponsored and organized by the E&ICT Academy, National Institute of Technology, Warangal* at Gudlavalleru Engineering College, Gudlavalleru from 4th to 9th February, 2019.
5. Attended the one-week Faculty Development Programme on “Internet of Things (IoT) with IBM Watson” in association with department of Information Technology & Computer Science and Engineering conducted from Nov 26th to Dec 1st, 2018 at Gudlavalleru Engineering College, Gudlavalleru, Krishna Dist, Andhra Pradesh.
6. Attended the one-week Faculty Development Programme on “Communications and Signal Processing”, organized by Department of Electronics and Communication Engineering, Gudlavalleru, during 29th Oct to 3rd Nov 2018.
7. Participated in “six-day Faculty Development Programme on ANDROID APPLICATION DEVELOPMENT” conducted by AVLOG INFOTECH Pvt Ltd, Bangalore held from 9th-14th, January 2018 at QIS College of Engineering and Technology, Ongole.
8. Participated in “6-days Faculty Development Programme on BIG DATA AND HADOOP PLATFORM” organized by Department of Skill Development Centre, QIS College of Engineering and Technology, Ongole from 18th-23rd, December 2017.

9. Participated in “5-days Faculty Development Programme on CISCO NETWORKING” by AVLOG Infotech Pvt. Ltd held from 6th-11th December 2017 organized by Department of Computer Science & Engineering, QIS College of Engineering and Technology, Ongole.
10. Participated in “Faculty Development Programme on Research Methodology & Innovation” at QIS College of Engineering & Technology, Ongole on 29th November, 2014.
11. Participated in “Faculty Orientation Programme” at QIS College of Engineering & Technology, Ongole on 25th, August 2014 by JNTUK Centre of Excellence for E-Resource Development & Deployment (CoEeRD).
12. Participated in “*Faculty Development Programme on Research Methodology*” at QIS College of Engineering & Technology, Ongole. from 19th Oct, 2013 to 20th Oct, 2013.
13. Participated in NPTEL workshop organized by *National Programme on Technology Enhanced Learning (IIT Madras)* on 20th, Sep 2013.
14. Participated in the *One Day Workshop on “New Paradigms in the accreditation system”* at Hotel Taj Gateway, Vijayawada on 28th sep, 2011.
15. *Two week Short Term Training Programme on “Transform Techniques in Signal Processing”* from 8th June to 20th June, 2009 Under AICTE Sponsored Staff Development Programme at Laki Reddy Bali Reddy College of Engineering, Mylavaram, Krishna Dt.
16. *Short term course on “Wireless communication & Networks”* conducted by G.S. Sanyal School of Telecommunications, **I.I.T. Kharagpur** during 14th – 19th May, 2007.
17. *Short term course on “VLSI Design”* conducted by Lakireddy Bali Reddy College of Engineering, Mylavaram from 22nd – 27th May 2006.
18. *Short term refresher course on “Cellular and Mobile Communications”* conducted by Lakireddy Bali Reddy College of Engineering, Mylavaram from Nov. 28 – Dec. 02, 2005.
19. *Short term Intensive Course on “Digital Image Processing Applications”* conducted by the Vignan’s Engineering College, Guntur from 28th June – 2nd July, 2004.
20. *Short term Intensive Course on “VLSI Design”* conducted by the Vignan’s Engg., College, Guntur from 21st June – 25th June, 2004.

Webinars attended: 10

- 1) Participated in the one day workshop on “Scholarly Communication” conducted by Research and Development Cell, Gudlavalleru Engineering College, Gudlavalleru on 25th, Feb 2021.

- 2) Participated in the AICTE sponsored One week - Short Term Training Program on Block chain Architecture Design and Use Cases – Phase III during 24th Aug 2020 to 29th Aug 2020.
- 3) Participated in the AICTE sponsored One week - Short Term Training Program on Block chain Architecture Design and Use Cases – Phase II during 17th Aug 2020 to 22nd Aug 2020.
- 4) Participated in the AICTE sponsored One week - Short Term Training Program on Block chain Architecture Design and Use Cases – Phase-I during 10th Aug 2020 to 15th Aug 2020.
- 5) Participated in the 6 days AICTE sponsored short term training programme on “Blockchain fundamentals” organized by the Department of Computer Science and Engineering, Saintgits College of Engineering, Kottayam, Kerala from 24th – 29th August, 2020.
- 6) Participated in A National Level Webinar on “*Intellectual Property Rights & Patents – A View*” organized by IQAC, Gudlavalleru Engineering College, Gudlavalleru held during 10-12 August 2020.
- 7) Participated in one week Refresher course on “Embedded system Design” organized by Department of Electronics & Communication Engineering, Gudlavalleru Engineering College, Gudlavalleru from 27th July to 1st August, 2020.
- 8) Participated in one week International online Knowledge Development Program on “*Challenges and Advancements in the Design of IoT, Embedded and VLSI Systems: A Researchers View*”, organized by Department of Electronics & Communication Engineering, Gudlavalleru Engineering College, Gudlavalleru, from 8th – 13th June, 2020.
- 9) Participated in the 2 Days Instructor Led Live Online Workshop on “*Digital Marketing*” held during 27th-29th June, 2020 organized by EduLakes Solutions LLP In Association with Tirutsava IIT Tirupati.
- 10) Participated a webinar on “*Radio Frequency Measurements for Cellular and Wireless Communication Systems*”, organized by Department of Electronics and communication engineering on 25th, May 2020 Gudlavalleru Engineering College, Gudlavalleru.

Acted as Resource Person: 15

- 1) Acted as Jury member for National Level Project Envision and Tech-Innovate Hackathon as part of Silver Jubilee Celebrations on 30th-31st, October 2023 at SRGEC, Gudlavalleru.
- 2) Acted as Jury member for ISTE AP Section State Level Student Convention & Award Function as part of Silver Jubilee Celebrations on 11th – 12th, August 2023 at SRGEC, Gudlavalleru.
- 3) Appointed by JNTUK as an Expert for the ratification of Assistant Professors at LBR College of Engineering, Mylavaram on 15th March, 2022.

- 4) Appointed by JNTUK as an Expert for the ratification of Assistant Professors at Vishnu Institute of Technology, Bhimavaram on 28th Marth, 2022.
- 5) Appointed by JNTUK as an Expert for the ratification of Assistant Professors at Vishnu Engineering Collge for Women, Bhimavaram on 28th Marth, 2022.
- 6) Acted as a Resource Person for **DST sponsored Faculty Development Program** on “Recent Trends in Mobile Ad hoc Networks” at MIC College of Engineering, Kanchikacherla on 15th, June 2019
- 7) Acted as an *adjudicator* for event Srujana (Paper Presentation) of **Lakshya-2k18 National Level Technical and Cultural Fest** held at Lakireddy Bali Reddy College of Engineering (Autonomous) on 27th dec, 2018.
- 8) Acted as *Session Chair* in the National Level Symposium “Emerge-2k18” at Dr.Samuel George Institute of Engg. & Technology” on 14th, March 2018.
- 9) Attended as *Session Chair* in the National Level Technical Fest “VIBHAV-2K18” At St.Ann’s College of Engineering and Technology, Chirala on 9th March, 2018
- 10) Acted as *Judge* in the National Level Symposium “Emerge-2k17” at Dr.Samuel George Institute of Engg. & Technology” on 17th, March 2017.
- 11) Acted as Judge for the National Level Technical Fest “Mittapalli’s Laksham-2k14” at Mittapalli Women’s Engineering College, Guntur on 22.03.2014.
- 12) Acted as **Judge** in the National Level Technical Symposium “QIS e-yaan 2K’12” at QIS Institute of Technology, Ongole on 3rd March, 2012.
- 13) Acted as **Judge** in the National Level Symposium “Emerge-2k12” at Dr.Samuel George Institute of Engg. & Technology” on 17th, March 2012.
- 14) Acted as **Judge** in the National Level Symposium “Emerge-2k11” at Dr.Samuel George Institute of Engg. & Technology” on 24th, March 2011.
- 15) Acted as **Judge** in the National Level Symposium “Techdharana-2k11” at BVSR College of Engineering, Chimakurthy.

Extra Curricular Activities: 14

- 1) Acted as coordinator for the one day workshop on “Scholarly Communication” conducted by Research and Development Cell, Gudlavalleru Engineering College, Gudlavalleru on 25th, Feb 2021.
- 2) **Acted as coordinator** for the AICTE sponsored One week - Short Term Training Program on Block chain Architecture Design and Use Cases – Phase III during 24th Aug 2020 to 29th Aug 2020.
- 3) **Acted as coordinator** for the AICTE sponsored One week - Short Term Training Program on Block chain Architecture Design and Use Cases – Phase II during 17th Aug 2020 to 22nd Aug 2020.
- 4) **Acted as coordinator** for the AICTE sponsored One week - Short Term Training Program on Block chain Architecture Design and Use Cases – Phase-I during 10th Aug 2020 to 15th Aug 2020.
- 5) Organized 2-day Workshop on “Recent Trends in VLSI Design” by CoreEL Technologies Pvt. Ltd., for M.Tech students and Staff on 23rd and 24th of Feb, 2015.
- 6) Organized a Guest lecture on “Opportunities for ECE student sin Embedded System” for III year students on 13th Feb, 2015.

- 7) Organized A seminar on “Network Theory” by TIME Institute, Ongole for IV Year Students on 12th Dec., 2014.
- 8) Worked as **Examination section incharge** at the departmental level at LBRCE, Mylavaram, Krishna District.
- 9) Acted as **Coordinator** for the ICCSP-2014 “International Conference on Communication and Signal Processing” held on 25th – 27th, April 2014 at QIS College of Engineering and Technology, Ongole.
- 10) Worked as **Discipline committee incharge** at LBRCE, Mylavaram, Krishna District
- 11) Worked as **Department Information Centre Coordinator** at LBRCE, Mylavaram, Krishna District
- 12) Acted as **Coordinator** for the ICCSP-2012 “International Conference on Communication and Signal Processing” held on 2nd – 4th, April 2012 at QIS College of Engineering and Technology, Ongole.
- 13) Worked as Coordinator for **2-day Workshop** on “Design and Development of Antennas” from 8th-9th, Jan 2011 conducted at QISCET, Ongole
- 14) Worked as Coordinator for **LAKSHYA-2010**, a National Conference, at LBRCE, Mylavaram, Krishna District

Patents Published: 1

1. Dr.Ch.Balaswamy et.al. published a patent titled “Advanced Metasurface Superstrate Structure for Improvement of Antenna Performance” *Application Number: 202141038830 A, India, Patent Office Journal No. 37/2021 Dated 10/09/2021*

Book Chapters: 1

1) Ravichander Janapati, Ravi Kumar Jatoth, A. Brahmananda Reddy, and Ch. Balaswamy, “Particle swarm Intelligence-Based Localization Algorithms in Wireless Sensor Networks”, in the book named “Smart Sensor Networks Using AI for Industry 4.0”, *CRC Press, Taylor & Francis Group, June 2021.*
<https://tinyurl.com/4cx3z4kt>

M.Tech Projects completed:

S.No.	Register Number	Name of the student	Year of completion
1	19481D7704	P.Likhitha	2021
2	18481D5504	K.Sowjanya	2020
3	14491D3807	Neela Neeraja	2018

4	14491D0611	N.China Babu	2017
5	13491D3804	K.Steffegraph	2013
6	13491D3810	T.Padma Priya	2013
7	12491D0604	R.Roopavathy	2012
8	12491D3806	V.Sravani	2012
9	11491D3808	P.Gowri Sankar	2013
10	11491D3813	S.Papi Reddy	2013
11	11491D0606	V.Sreekanth	2013
12	10491D3812	P. Saradha	2012
13	09491D3804	N. Naga Raja Kumari	2011
14	09491D3806	Ch. Sai Kalyana Deepthi	2011

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Aadhar Number: 837485293464

Passport Number: V9889242

Passport Date of Expiry: 09/05/2032

Declaration: The above information given is correct up to the best of my knowledge.

Dr. CH. BALASWAMY