


FACULTY PROFILE

Name	:	Dr. Santosh B. Kumbalavati	
Designation	:	Asst. Prof. and Asst. Placement Officer	
Department	:	Electronics and Communication Engineering	
Employee ID	:	1-465655613	
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Orcid ID	:	0000-0002-3030-1504	
Scopus ID	:	57201942350	
Vidwan Id	:	125019	
Researcher ID (Web of Science)	:	AAR-4355-2020	
Google Scholar ID	:	3jtjUHwAAAAJ	
Qualification	:	Ph.D., M.Tech, B.E.	
Professional Experience Teaching experience	:	17 Years	
Administrative Responsibilities	:	<ol style="list-style-type: none"> 1. Assistant Placement Officer 2. Admission Coordinator 3. Co coordinator, Mastersoft ERP 4. E-attestation officer, State Sholarship Portal 	
Teaching	:		
No. of PhD Candidate Guiding	:	02	
No. of Projects Guided UG	:	18	
Research	:	15 Years	

Interested Area	:	<ol style="list-style-type: none"> 1. Wireless Networks 2. Wireless Sensor Networks 3. Internet of Things 4. Computer Networks
Patents	:	<ol style="list-style-type: none"> 1. S. B. Kumbalavati, K. Y. Bendigeri, et.al.,(May, 2021 “Smart wireless charging system for IoT devices in Home Automation”, (Indian Patent, Application No. 202141019370A) https://ipindia.gov.in/writereaddata/Portal/IPOJournal/1_4975_1/Part-1.pdf 2. S. B. Kumbalavati, K. Y. Bendigeri, et.al.,(June, 2021) “A Novel method for crowd detection and alerting social distance using IoT and methods thereof”, (Indian Patent, Application No. 202111019009A) https://ipindia.gov.in/writereaddata/Portal/IPOJournal/1_4983_1/Part-1.pdf
Research Grants	:	<ol style="list-style-type: none"> 1. “ARM processor based edible oil quality measuring instrument” sanctioned under KSCST on 2018-19 2. “Accident Data Recorder”, sanctioned under VTU Belagavi for the academic year 2021-22
Publications Books/Chapters	:	<ol style="list-style-type: none"> 1. S.B. Kumbalavati, J.D. Mallapur, Abhijeet R. Talawar, Abhishek R.Talawar, “One Step Technological Solution for Agriculture”, book chapter in ICT for Competitive Strategies, pp.713-719, May 2020
Journals	:	<ol style="list-style-type: none"> 1. Santosh B. K., J. D. Mallapur, “A survey on 4G wireless networks”, International Journal of Cognitive science, Engineering and Technology, Volume 1, Issue 1 November 2013 PP 32-36, ISSN 2347-8047 2. S.B. Kumbalavati, J. D. Mallapur, “A Survey on Vertical Handover in Heterogeneous Networks”, International journal of informative and futuristic research, Volume 2, Issue 9, May 2015 PP 3028-3033, ISSN 2347-1697. 3. S.B. Kumbalavati, Vidya Soragavi, Sabnam Mulla, Savitri B., “ Droid alert system using 3G networks”, International journal of informative and futuristic research, Volume 2, Issue 9, May 2015 PP, ISSN 2347-1697. 4. S.B. Kumbalavati, J. D. Mallapur, “Third party intervened vertical handover in heterogeneous networks”, International Journal of Computer Networking, Wireless and Mobile Communications (IJCWMC) Vol. 6, Issue 4, Aug 2016, 1-12, ISSN (P): 2250-1568; ISSN (E): 2278-9448 5. S.B. Kumbalavati, J. D. Mallapur, “Security in third party intervened vertical handover in heterogeneous networks”, International Journal of Engineering and Technology (IJET), Vol.9, no.3, Jun-Jul 2017, PP. 1750-1757 ISSN(P):2319-8613, ISSN(O): 0975-4024 (Scopus) 6. S.B. Kumbalavati, J. D. Mallapur, “Modelling of Seamless Vertical Handover Mechanism using Demanded Resource Identification & Mapping,” International Journal of Information Technology and Computer Science (IJITCS), ISSN (P) : 2074-9007, ISSN (O): 2074-9015

		<ol style="list-style-type: none"> 7. S.B. Kumbalavati, J. D. Mallapur, “A Cost Effective Modelling of Faster Authentication Mechanism in Vertical Handover for an Effective latency Control”, International Journal of Sensor, Wireless Communication and Networks(IJSWCC), ISSN (P) :2210-3279 (Scopus) 8. S.B. Kumbalavati, Sairabanu, Prema Biradar, Deshpande, Aswini, “ARM controller based edible oil quality measuring instrument”, International Journal of Computer Trends and Technology, May 2019 ISSN: 2231-2803 9. S.B. Kumbalavati, Kirankumar Y. Bendigeri, J. D. Mallapur, “Circular Based Node Placement in Wireless Sensor Networks”, International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-10, August 2020, pp:215-221. 10. Dheshmuk Mallikarjun, and S. B. Kumbalavati, “Towards 6G : An overview of Next Generation Communication”, International Journal of Research and Analysis in Science and Technology, Vol.4, No. 5, 2024
Conferences	:	<ol style="list-style-type: none"> 1. Santosh B. K., J. D. Mallapur, Supriya H, and Tej H, “Optimization of fuzzy cluster nodes in cellular multimedia networks”, Proceedings of International Conference on signal processing, communication and networking (ICSPCN-2013), 05th - 06th June 2013, organised by World Academy of Science, Engineering and Technology, New York, USA. 2. S.B. Kumbalavati, J. D. Mallapur, Sadiqa Bawoor, S.C. Hiremath, “Optimized Ticket Based Routing Protocol in Ad Hoc Networks ”, Proceedings of national conference on Recent Advances in Electronics & Computer Engineering 13th -15th February 2015, IIT Roorkee India. 3. S.B. Kumbalavati, J. D. Mallapur, “Third party intervened vertical handover in heterogeneous networks”, 3rd IEEE International Conference on Electronics and Communication Systems, 25th -26th February 2016, Coimbatore India 4. S.B. Kumbalavati, Kirankumar Y. Bendigeri, J. D. Mallapur, “Recovery Based Fault Tolerance in Wireless Sensor Networks ”, IEEE International conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT-2017), ISBN 978-1-5386-2361-9, PP. 122-128, 15th-16th December 2017, Mysuru, India. (Scopus) 5. S.B. Kumbalavati, J.D. Mallapur, Abhijeet R. Talawar, Abhishek R. Talawar, “One Step Technological Solution for Agriculture”, 4th International Conference on Information and Communication Technology for Competitive Strategies (ICTCS-2019), 13th -14th December 2019, Udaipur, Rajasthan, India 6. S.B. Kumbalavati, Kirankumar Y. Bendigeri, J. D. Mallapur, “Wireless Sensor Networks and its application for Agriculture”, 3rd International conference on Intelligent Data Communication Technologies and Internet of Things (ICICI 2020) organised by JCT college of

	<p>Engineering and Technology, Coimbatore, India 27th-28th August 2020</p> <ol style="list-style-type: none"> 7. S.B. Kumbalavati, Kirankumar Y. Bendigeri, J. D. Mallapur, “ Real Time Monitoring of Crop in Agriculture using Wireless Sensor Networks”, 2nd International conference on Innovative Data Communication Technologies and Application(ICIDA 2020) organised by RVS college of Engineering and Technology, Coimbatore, India 03rd -04th September 2020 8. S.B. Kumbalavati, Basanagouda F. Ronad, “Performance Assessment of SPV Powered DC Irrigation Pumps with Solar Tracking Mechanism” 3rd IEEE International Conference on Energy, Power and Environment: Towards Clean Energy Technologies, Manipur, Sikkim, PP 1-5, 2021 9. S. B. Kumbalavati, K. Y. Bendigeri, and J. D. Mallapur, "Direction Based Node Placement in Wireless Sensor Network," 2021 International Conference on Artificial Intelligence and Smart Systems (ICAIS), 2021, pp. 1306-1313, doi: 10.1109/ICAIS50930.2021.9395999. 10. S. B. Kumbalavati, Mallikarjun Dheshmuk, “Performance of OFDM and FBMC: A Comparative Analysis”, in International Conference on Intelligent Innovations in Engineering and Technology (ICIET) 22nd-24th September 2022. 11. S. B. Kumbalavati, K.B. Balavalad, K. Y. Bendigeri, and J. D. Mallapur, “Fuzzy Cognitive Security Techniques for Data Aggregation in Capillary Networks”, 5th International Conference on Computer and Communication Technologies (IC3T) 2023, 6-7 October, 2023 12. S. B. Kumbalavati, J. D. Mallapur · K. B. Balavalad (B) · K. Y. Bendigeri, “Fuzzy Cognitive Security Techniques for Data Aggregation in Capillary Networks” Proceedings of Fifth International Conference on Computer and Communication Technologies, Lecture Notes in Networks and Systems 897, https://doi.org/10.1007/978-981-99-9704-6_22 13. Dheshmuk Mallikarjun, and S. B. Kumbalavati. "Optimization Techniques for Reconfigurable Intelligent Surfaces in 6G." In 2024 5th International Conference on Electronics and Sustainable Communication Systems (ICESC), pp. 772-776. IEEE, 2024. DOI: 10.1109/ICESC60852.2024.10690066 14. B.F. Ronad, S.Y. Goudappanavar, Basavaraj Hugar, Santosh Raikar, S. B. Kumbalavati, K.Y. Bendigeri, “ IOT Based Control Mechanism for Solar PV water Pumps Employed for Water Distribution in Academic Campus”, In 3rd International Conference on Advances in Data Driven Computing and Intelligent Systems (ADCIS 2024) 15. Dheshmuk Mallikarjun, and S. B. Kumbalavati, “Towards 6G : An overview of Next Generation Communication”, International
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		Conference on Sustainable Solutions for Engineering and Technology (SSET 2024)
Invited Talks	:	<ol style="list-style-type: none"> 1. Delivering a talk on “Handling classroom situations” in a FDP on Effective teaching practices organized by BEC Bagalkot from 3rd to 5th March 2012 2. Delivering a talk on “What next after 10th and 12th”, for children’s of Parry sugars Ltd Nainegali, organized by Parry sugars Ltd. Nainegali on 24th April 2017 3. Delivering a talk on “Public Speaking” for rural students of Bagalkot students organized by Bagalkot Devanga sabha Banashankari on 25th May 2018
Events Organized	:	<ol style="list-style-type: none"> 1. Three days student development Program on “Microcontroller” From 4th – 5th March 2011, In Department of Instrumentation Technology BEC Bagalkot. 2. Three days student development Program on “Microcontroller” From 24th – 25th March 2011, In Department of Instrumentation technology BEC Bagalkot 3. One week student development Program on “Computer Networks” From 8th to 13th November 2010, in Department of Instrumentation technology BEC Bagalkot 4. Two days student development Program on “ARM Cortex M3” From 4th – 5th March 2014 In Department of Instrumentation Technology BEC Bagalkot. 5. Two days HRD training program for first year students under training and placement department from 10th to 11th October 2015. 6. A guest lecture on “Smart Sensors” organized for the students of E&IE department on 20th August 2016, under TEQIP-II. 7. One day Student development programme on “Sensors, Conditioning and Analysis Techniques” held on 24th October 2019 under TEQIP III 8. Online webinar on “Recent trends in data science and analytics” held on 5th December 2020 under TEQIP III
Conferences/ Symposiums/ Workshops/Training Programs Attended	:	<ol style="list-style-type: none"> 1. FDP on “Effective Teaching Practices” from 29th – 31st January 2010, organized by BEC Bagalkot 2. VTU-VGST sponsored FDP on “ Recent advances in Wireless Sensor Networks” from 10th 12th February 2011, organized by BEC Bagalkot in association with VTU Belagavi 3. Mission10X workshop from 26th-30th March 2012 organized by VTU Belagavi 4. Two days workshop on “Rapid simulation and performance evaluation of current and future network constructs” from 19th – 20th February 2013 organized by Nihon Communication Solutions Pvt. Ltd.

	<p>Bengaluru</p> <ol style="list-style-type: none"> 5. TEQIP II sponsored Three days FDP on “Recent advances in wireless networks” from 16th -18th May 2013 organized by BEC Bagalkot 6. TEQIP-II sponsored three days National level workshop on Implementation of signal processing algorithms using FPGAs” from 23rd -25th May 2013 organized by BEC Bagalkot 7. TEQIP-II sponsored three days national level workshop on “ Technical documentation using Latex from 27th-29th May 2013 organized by BEC Bagalkot 8. TEQIP II sponsored three days FDP on “Soft and Evolutionary computing techniques and its applications” from 30th May-1st June 2013 organized by BEC Bagalkot 9. TEQIP II sponsored three days FDP on “Design, Modeling and Simulation of MEMS Devices” from 10th – 12th July 2013 organized by BEC Bagalkot 10. TEQIP II sponsored three days FDP on “Research issues in distributed sensor networks” from 22nd-24th August 2013 organized by BEC Bagalkot 11. TEQIP II sponsored National level workshop on “Distributed and Cloud computing” from 15th 17th 2013 organized by BEC Bagalkot 12. TEQIP II sponsored three days FDP on “Advanced network computing and simulation” from 22nd -24th November 2013 organized by BEC Bagalkot 13. TEQIP II sponsored one day workshop on “ Modern aspects of intellectual solutions on publications, patents and personal management” on 7th December 2013 organized by BEC Bagalkot 14. Two days National level workshop on “Latex” from 12th -13th December 2013 organized by Jain University Bengaluru 15. TEQIP II sponsored Five days FDP on “ Emerging R&D in wind energy conversion present and future challenges” from 21st-26th July 2014 organized by BEC Bagalkot 16. National level workshop on “Cloud computing” from 16th to 18th January 2015 organized by Nihaon Communication Solutions Pvt. Ltd Bengaluru 17. National conference on “Recent Advances in Electronics and Computer Engineering (RAECE2015)” from 13th-15th February 2015 organized by IIT Roorkee 18. TEQIP II sponsored three days FDP on “ Big data analytics using hadoop” from 9th-11th July 2015 organized by BEC Bagalkot 19. FDP organized and conducted by Teaching Learning Centre, IIT Madras from 16th-18th July 2015 20. Five days continuing education and training programme on “Advances in wireless communication networks” from 29th September to 3rd
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	<p>October 2015 organized by NIT Warangal</p> <ol style="list-style-type: none"> 21. IEEE sponsored 3rd International conference on Electronics and Communication Systems on 25th-26th February 2016 organized by Karpagam college of engineering Coimbatore, Tamilnadu, India 22. Three days workshop on Electronic system design and manufacturing workshop from 29th-30th March 2016 organized by CSI Bengaluru chapter, CLIK, GoK-Dept.of IT&BT and BEC Bagalkot 23. STEP- A state of the Nation conclave 2016 organized at VTU Auditorium, Macche, Belagavi 24th to 25th September 2016 24. Three days Induction Programme on “Empowering teachers to enrich students” from 02nd-4th December 2016 organized by BEC Bagalkot 25. Presented a paper titled “Recovery based fault tolerance in WSN” in International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques organized by GSSS Institute of Engineering and Technology for Women, Mysuru in association with IEEE Bengaluru section from 15th-16th December 2017 26. TEQIP II sponsored two days FDP on “sensor networks” from 8th to 9th January 2018 27. TEQIP II sponsored one week FDP on “Research avenues in information technology” from 3rd to 7th June 2019 organized by BEC Bagalkot 28. NPTEL workshop on 29th November 2019 organised by IIT Madras and BEC Bagalkot 29. Presented a paper titled “One step technological solution for agriculture” in 4th International conference on Information and Communication Technology for Competitive strategies (ICTCS 2019) from 13th to 14th December 2019 at Bhupal University Udaipur, India 30. One day workshop on “Publishing research in high quality journals” on 19th December 2019 organized by BEC Bagalkot 31. Two weeks AICTE sponsored FDP on “Current practices and critical issues for OBE in engineering education/Institutions” from 27th January to 7th February 2020 organized by BEC Bagalkot 32. TEQIP III sponsored Two weeks course on “ Digital transformation in teaching learning process” from 14th February to 6th March 2020, course offered by IIT Bombay 33. TEQIP III sponsored three days online FDP on “Recent Advances in automation and networking” from 18th to 20th June 2020 organized by BEC Bagalkot 34. TEQIP III sponsored one week online FDP on “Six sigma” from 6th to 10th July 2020 organized by IQAC and BEC Bagalkot 35. TEQIP III sponsored one week online FDP on “Internet of Things” from 07th to 11th December 2020 organized by IIT Indore 36. NPTEL-AICTE FDP on “Cloud computing” during Feb-Apr 2020
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Awards and Honors	:	<p>1. UG final year project “Droid Alert system using 3G Networks” secured I place in ‘Srishti 2015’ a state level Engineering students project exhibition and competition organised in New Horizon college of Engineering Bengaluru</p> <p>2. UG final year project “Design and implementation of security system in ATMs” secured III place in ‘Srishti 2017’ a state level Engineering students project exhibition and competition organised in CMR university Bengaluru</p>