# FACULTY-PROFILE

<table>
<tr><td>Name of Teaching Staff</td><td colspan="3">Dr. C. Lakshminarayana</td><td rowspan="3">  </td></tr>
<tr><td>Designation</td><td colspan="3">Professor (Direct Recruited Professor)</td></tr>
<tr><td>Department</td><td colspan="3">Electrical & Electronics Engineering</td></tr>
<tr><td>Date of birth</td><td colspan="4">01.06.1969</td></tr>
<tr><td>Date of Joining the Institution</td><td colspan="4">20.03.2003(15 Years in the Cadre of Direct Recruitment Professor)</td></tr>
<tr><td>Qualifications</td><td colspan="4">Ph. D</td></tr>
<tr><td rowspan="2">Total Experience in Years</td><td>Teaching</td><td>Industry</td><td colspan="2">Research</td></tr>
<tr><td>26 Yrs</td><td>--</td><td colspan="2">---</td></tr>
<tr><td rowspan="2">Papers Published</td><td>National</td><td colspan="3">International journal</td></tr>
<tr><td>--</td><td colspan="3">28</td></tr>
<tr><td rowspan="3">Papers Presented in Conferences</td><td>National</td><td colspan="3">International conference</td></tr>
<tr><td>01</td><td colspan="3">18</td></tr>
<tr><td>Total</td><td colspan="3">47</td></tr>
<tr><td rowspan="2">Ph. D Details – Field & University</td><td>Field</td><td colspan="3">University</td></tr>
<tr><td>Power Systems Engg</td><td colspan="3">Anna University (Guindy Main Campus)</td></tr>
<tr><td rowspan="2">Ph. Ds / Projects Guideding</td><td colspan="2">Ph.Ds</td><td colspan="2">Projects at Masters level</td></tr>
<tr><td colspan="2">06=02(PT)+ QIP STUDENT(03)+ FULL TIME Ph. D NDF(01)</td><td colspan="2">17</td></tr>
<tr><td>Ph.D Awarded</td><td colspan="4">04</td></tr>
<tr><td>Books Published / IPRs/ Patents</td><td colspan="4">2</td></tr>
<tr><td>Professional Memberships</td><td colspan="4">LM85407, SENIOR MEMBER IEEE :94215000</td></tr>
<tr><td>Consultancy Activities</td><td colspan="4">Third Party Inspection, Advisor UPSC, Member of NBA Evaluator<br>Competitive Exam question paper setting for: UPSC,KPSC,MPSC, Staff selection commission &HPCL</td></tr>
<tr><td>Awards</td><td colspan="4">➢ Excellence in Higher Education<br>➢ Fellowship for the Society of Innovative Educationalist and Scientific Research Professional from Malaysia</td></tr>
<tr><td rowspan="5">Grants fetched</td><td>Organization</td><td>Tittle</td><td colspan="2">Amount in lakhs &Year</td></tr>
<tr><td rowspan="2">AICTE, New Delhi</td><td rowspan="2">AICTE Grants for National Conference on “Energy Systems and Energy Issues”</td><td>1.5</td></tr>
<tr><td>Year 2001</td></tr>
<tr><td rowspan="2">DRDO</td><td rowspan="2">Design and Implementation of Wireless Energy Harvesting Sensor System with Integrated Data Acquisition and Communication System for Gas Turbine Engine Application.</td><td>8.9418</td></tr>
<tr><td>Dec 2015 to June 2017<br>Completed</td></tr>
<tr><td>KRDEL</td><td>Energy in Conservation &</td><td colspan="2">1.00</td></tr>
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| | | | |
|---|---|---|---|
| | | Energy Efficiency using IOT | 2020-2021 **Completed** |
| | TEQIP | Design and Implementation of Wind Turbine based Intelligent and Efficient Energy Harvesting Control System | 6.00<br>June 2016- Dec 2017 **Completed** |
| | TEQIP | Solar PV Wind Hybrid With DC Micro Grid | 16.00<br>July 2016- Dec 2017 **Completed** |
| **Consultancy Activities executed** | LITE SYSTEMS INDUS, Bangalore | 3rd Party Certification of checking given parameters of luminaries, GI pole and high mast | 0.2<br>14-10-2010 |
| | | **GRAND TOTAL** | **34 LAKHS** |
| **Interaction with Professional Institutions** | CPRI, PRDC, ISRO,DRDO | | |
| **Additions Responsibilities** | ▪ **Head of the Department EEE:2016-2019 & 2020-2021**<br>▪ **Member of NBA Evaluator**<br>▪ **Chair, IEEE SSIT Joint Bangalore Chapter (2019-2023)**<br>▪ **Nodal Officer EAP:2012-2016**<br>▪ **Member BOG(BMSCE):2016-2019**<br>▪ **UPSC, MPSC &KPSC Technical Advisor**<br>▪ **ISTE General Secretary:2009-Till Date**<br>▪ **Member Selection Committee: DTE, Govt of Karnataka**<br>▪ **Member PhD Review Committee, VTU Belagavi**<br>▪ **Member Board of Studies Electrical Cluster: PES Mandya, New Horizon College, SJCE Mysore BMSIT, Bangalore Reva University Bangalore.**<br>▪ **Member Board of Examiner Electrical Cluster: UVCE, Dr AIT,PESCE, New Horizon College.** | | |

**PH.D. AWARDED:**

| Sl No | NAME | TITLE | Ph.D. Awarded | Year | Thesis submitted |
|---|---|---|---|---|---|
| 1 | **SHILPA K.C** | Scheduling and Allocation in High Level Synthesis Using Evolutionary Computation | YES | 2017 | |
| 2 | **PRAKASH D. B** | Development of AI Based Algorithms for Reactive Power Compensation in Deregulated Environment | YES | 2017 | |
| 3 | **SHAMALA N** | Real Time Implementation of Active Filter for Harmonic Suppression in Distribution System | YES | 2018 | |
| 4 | **RAJU HAJARE** | Design and characterization of FINFET based data path and SRAM memory | YES | 2018 | |

**PATENTS FILED:**

**1.“APPARATUS OF ETCHED COPPER CLAD COOKTOP”** ,bearing application no. 201941003947 filed with the Indian Patent Office on January 31, 2019.

**2.“RENEWABLE WIND POWER THROUGH MODIFIED WIND TURBINE ROTOR FOR OPTIMAL POWER MANAGEMENT IN SMART CITIES”,** bearing application no. 202101376 filed with the Australian Patent Office on March 16, 2021.

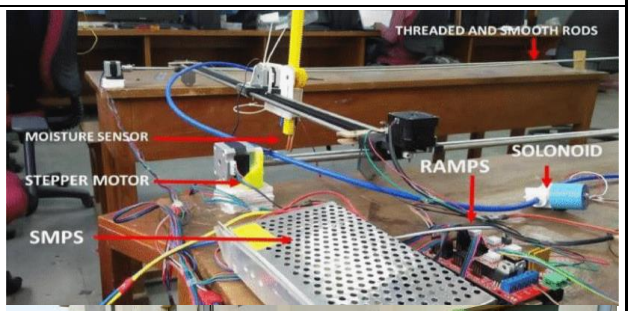
**CENTER OF EXCELLENCE (COE)**

**BMSCE-CARES Renewables-Centre of Excellence in Solar Photovoltaic Systems for Rs 25 lakhs**.

**BEST PAPER AWARD:**

Lakshminarayana C and Mohammed Arfan, **"VLC FOR UNDERWATER OPERATIONS"** Third International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT-2018)

**Product Development:**

| Year | Details of product | |
|---|---|---|
| 2018 | VLC for Underwater Operations: Li-Fi Solution for Underwater Short-Range Communication<br><br>Supervisor: Dr.C. Lakshminarayana<br><br>https://ieeexplore.ieee.org/document/9001519 |  |
| 2019 | Solar Electric Hybrid Heated Bed Smart Electric Stove<br><br>Supervisor: Dr.C. Lakshminarayana<br><br>https://link.springer.com/chapter/10.1007/978-3-030-23162-0_33 |  |
| 2020 | Vision Intelligence KineTic Opensource Robot (VIKTOR III)<br><br>Supervisor: Dr. C.Lakshminarayana<br><br>https://ieeexplore.ieee.org/document/9074936 |  <br>  |

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|---|---|
| **EXPERT LECTURE DELIVERED** | |
| 1 | **Expert talk on 'Optimization Techniques for power system' in the workshop on Present Trends in Non-Conventional Practices in Power Engineering conducted during 15/04/2019 – 16/4/2019 at FET, MJP Rohilkhand University, Bareilly.** |
| 2 | Invited to deliver FDP lecture **on "Optimization Techniques for Power System Problems"**, organized by Department of Electrical Engineering Delhi Technological University, New Delhi during 4-5.December 2019 |
| 3 | Invited to deliver FDP lecture **on "Development of AI Based Algorithms for Reactive Power Compensation in Deregulated Environment"**, organized by Department of Electrical Engineering Delhi Technological University, New Delhi during 4-5,December 2019. |
| 4 | **Expert talk on** "**DG integration on loss reduction and peaking loading in rural areas**" in the Short-Term Training Program (STTP) on "**Smart Grid Technologies for Energy Efficiency and Active Demand Side Management**" **conducted during 06/01/2021 at** New Horizon College of Engineering, Bengaluru. |
| 5 | **Expert talk on AI APPLICATION FOR PLACEMENT OF DG AND CAPACITOR IN RADIAL DISTRIBUTION SYSTEM" in** One Week AICTE Sponsored Online Faculty Development Program (FDP) on "Recent Challenges in Electrical & Electronics Engineering" during 15/11/2021 to 20/11/2021 **at Guru Jambheshwar University of Science and Technology, Haryana** |
| 6 | **Expert talk on "Energy conservation " conducted on the occasion of National Energy Conservation Day-2022** organized by institutions Innovation Council Government Engineering college, Ramanagar in association with Institution innovation council ministry of HRD and AICTE during 10/03/2022**.** |
| **ORGANIZING CHAIR& SESSION CHAIR** | |
| **ORGANIZING CHAIR:** | |
| 1 | **International Conference on Power, Control and Sustainable Energy Systems (ICPCSES-2022) in association with River publishers Virtual On 28th– 30th JULY 2022** |
| 2 | **16th International Conference on Remote Engineering and Virtual Instrumentation, REV 2019 in association with International Association of Online Engineering (IAOE), Feb 2019 -Virtual lab for synchronous machine by Phoenix Contact-Germany Rs:10 lakhs.** |
| **SESSION CHAIR:** | |
| 1 | IEEE International Conference on Advances in Electronics, Communication, Computing and Intelligent Information Systems (ICAECIS), 19th -21st April 2023. |
| 2 | 4TH International Conference on Academic research in Engineering Management and Information Technology(ICAREMIT-2019), 16-18, April 2019. |
| 3 | International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT-2018), DEC 14& 15, 2018. |

*Achievements since the date of joining:*

| D | R&D | No. of Publication | Teaching Award | Books/ Monograph | Conference Seminars | Extracurricula rr activities* | Admin. |
|---|---|---|---|---|---|---|---|
| 02 | 04 | 44 | 02 | -- | 02 | -- | 05 |

# FD-Faculty Development, R&D-Research and Development:

| Sl No | Project Guided for PG 4th Semester Students | | |
|---|---|---|---|
| | **Year** | **Title of project** | **Associated Organization** |
| **1** | 2007 – 2009 | Ripple Current Generator. | MEHER CAPACITORS PVT.LTD |
| **2** | 2007 – 2009 | Design of Gate drive for IGBT using forward converter. | MEHER CAPACITORS PVT.LTD |
| **3** | 2009 – 2010 | High Frequency current Fed Double Forward, Low High Efficiency, Low Voltage High Current. DC-DC Converter for Spacecraft Application. | ISRO STTELLITE CENTRE BANGLORE |
| **4** | 2010 – 2011 | 2KW Battery Discharge Regulator. | ISRO STTELLITE CENTRE BANGLORE |
| **5** | 2011 – 2012 | High Frequency High Efficiency, Low Voltage High Current DC-DC Converter For Spacecraft Application. | ISRO STTELLITE CENTRE BANGLORE |
| **6** | 2012 – 2013 | Field Programmable Gate Array Based Majority Voting Logic Taper Charge Regulator For Spacecraft's. | ISRO STTELLITE CENTRE BANGLORE |
| **7** | 2013-2014 | Integrated Boost Resonate Convertor For Photovoltaic Application. | BMSCE |
| **8** | 2014-2015 | Simulation and Implementation of Dual-stage Design Buck and Boot convertors for Low Power Applications. | BMSCE |
| **9** | 2015-2016 | A Novel Design of Cascaded Multi-Level Inverter with Reduced THD for Solar Applications. | BMSCE |
| **10** | 2016-2017 | A Novel Design Of Cascaded Multilevel Inverter With Reduced THD For Solar Applications. | BMSCE |
| **11** | 2016-2017 | Comparison of Winch Application For Induction Motor And PMSM Drive. | ABB |
| **12** | 2017-2018 | Platform Servo Drive for Medical Applications. | GE HEATH CARE |
| **13** | 2018-2019 | Power Management of Solar and Battery for On-Grid and Off-Grid. | BMSCE |
| **14** | 2018-2019 | Design and Implementation of Solar Synchronous Buck Converter With Lead Acid Battery Charging. | BMSCE |
| **15** | 2019-2020 | Seven Level Modular Multilevel Converter with FFT Analysis. | BMSCE-COE |
| **16** | 2020-2021 | Design of Converter From Single Phse AC | ALPHA DESIGN |

| | | | |
|---|---|---|---|
| | | Supply to 1kv Pulsating DC Supply Having Power Of 1200Watt | TECHNOLOGIES |
| **17** | 2021-2022 | Design And Implementation of Speed Control For Three Phase Induction Motor Using Active Front-End Drive | BMSCE-COE |
| **18** | 2022-2023 | Design and Implementation of Cycloconverters for Speed Control of Induction Motor | BMSCE |

## *INTERNATIONAL JOURNALS/CONFERENCES:*

1. Lakshminarayana. C and Mohan. M. R, "A Genetic Algorithm Multi-Objective Approach for Efficient Operational Planning Technique of Distribution Systems", International Journal of European Transactions on Electrical Power Vol. 19, Issue 2, pp. 186-208, March 2009
2. Lakshminarayana. C and Mohan. M. R, "An Improved Technique for Service Restoration in Distribution Systems Using Non dominated Sorting Genetic Algorithm", International Journal of Power and Energy Systems, Vol. 31, No 3, pp. 162-170, 2011.
3. Puttaswamy G. and C.Lakshminarayana C. and Cyril Prasanna Raj P., "Design and VLSI Implementation of VCO for High Speed RF Applications", International Journal of Engineering and Technology (IJET), Vol.3, No.3, June-2011, pp. 244-248.
4. Shilpa.K.C and C.Lakshminarayana, "Low Power/High Speed Design in VLSI With the Application of Pipelining and Parallel Processing" International Journal of Computer &Technology, Vol.2, No.3, June-2012, pp. 96-101:ISSN:2277-3061.
5. Shilpa.K.C and C.Lakshminarayana, "Particle Swarm Optimization For ILP Model Based Scheduling" International Journal of Advanced Research in Computer Engineering and Technology (IJARCET), Vol.3, Issu.6, June-2014, pp. 2150-2154.
6. Shilpa K.C and C.Lakshminarayana, "Natural Computation for Optimal Scheduling with ILP Modeling in High Level Synthesis" Publications: ELSEVIER Procedia Computer Science46 International Conference on Information and Communication Technologies, ICICT 2014, 3-5 pp. 167-175,Jan 2015(DOI:10.1016/J.PROCS.2015.02.08).
7. Shyamala N and C. Lakshminarayana, "An insight to Harmonic Suppression Technique With Power Filter in Power Electronics", International Journal of Computer Applications, Feb – 2015, Vol – 111(9), pp – 26 – 34.
8. Raju Hajare and C. Lakshminarayana,G. H. Raghunandan & Cyril Prasanna raj; "Performance enhancement of FINFET and CNTFET at differentnode technologies", International Springer Journal of Micro system Technologies.ISSN 0946-7076,March-2015.
9. Arunakumar Siddappa Bhosale and C. Lakshminarayana "Simulation and Implementation of Dual-Stage Design Buck and Boost Converters for Low Power Applications", International Journal of Advance Research and Innovation, june 2015,Volume 3, Issue 2 (2015) 308-311 ISSN 2347 – 3258.
10. Shyamala N and C.Lakshminarayana, "A Presage Mathematical Framework to Leverage Power Quality in Power Electronics." Communications on Applied Electronics (CAE) – ISSN: 2394-4714. Foundation of Computer Science FCS, New York, USA. Volume 2 – No.3, June 2015
11. D.B. Prakash and C. Lakshminarayana, "Multiple DG Placements in Distribution System for Power Loss Reduction Using PSO Algorithm" Publications: ELSEVIER Procedia Technology, Volume/issue 25C – No.3, september 2016,pp:785-792.
12. Shilpa K.C , LakshmiNarayan .C and Manoj Kumar Singh, "*Adaptive Differential Evolution For Optimal Schedule In Behavioral Level Synthesis*" IOSR Journal of VLSI and Signal Processing (IOSR-JVSP), Vol 6, Issue 4, Ver. I , PP 55-59 ,Jul. - Aug. 2016, e-ISSN: 2319 – 4200, p-ISSN No. : 2319 – 4197.

**13.** Shilpa K.C and C.Lakshminarayana, "Optimal Resource Schedule in Architectural Level Synthesis using Evolutionary Computations*", Indian Journal of Science and Technology*, Vol 9(31), DOI: 10.17485/ijst/2016/v9i31/96819, August 2016

**14.** Ganeshwaran Singh.N and C. Lakshminarayana, " A Novel Design Of Cascaded Multilevel Inverter With Reduced THD For Solar Applications", International Journal of Advance Research and Innovation, August 2016,Vol 5, Issue 8 (2016) 282-289 ISSN 2278-0211.

**15.** D.B. Prakash and C. Lakshminarayana, "Optimal siting of capacitors in radial distribution network using Whale Optimization Algorithm", Elsevier:-Alexandria Engineering Journal, November 2016 http://dx.doi.org/10.1016/j.aej.2016.10.002.

**16.** Shilpa K.C , LakshmiNarayan .C and Manoj Kumar Singh, "A Comparative Study of Different Strategies Using Adaptive Differential Evolution for Best Scheduling in Architectural Level Synthesis", *Indian Journal of Science and Technology*, (accepted for publication) October 2016

**17.** Md. Shaheriaz and C.Lakshminarayana, "Application of Analytical Techniques for Modeling and Simulation of Aircraft Engine Control System Sensors under Ideal Cycle Analysis Model", International Journal of Electronics, Electrical and Computational System IJEECS ISSN 2348-117X Volume 6, Issue 10 October 2017.

**18.** Rakesh Gole and C.Lakshminarayana "Seven level modular multilevel converter with FFT analysis", International Journal of Engineering Applied Sciences and Technology, (IJEAST 2020) ISSN: 2455-2143 DOI: 10.33564.

**19.** Poornima G and C. Lakshminarayana, "System Integration Framework for Smart City Applications", Journal of Huazhong University of Science and Technology, Volume 50,Issue 04, April- 2021.ISSN 1671-4512.

**20.** Abhishek and C.Lakshminarayana, "Design of Converter from single-phase AC Supply to 1KvV Pulsating DC supply having 1.2 KW of Power", International Journal of Zeichen,Vol.7, Issue 8, ISSN No.0932-4747,2021

**21.** M N Suneetha and C.Lakshminarayana, "Power Buck Converter Controlled by a Model Predictive Control to Integrate a Wind Energy Conversion System to a DC Micro grid", International Journal of Design Engineering Issue 08, pp: 16339-16363 ISSN: 0011-9342 | Year 2021

**22.** Shilpa K.C, and Lakshminarayana C, "Auto Sunlight Tracking Solar Powered IOT Based Light Control System", Gradiva Review Journal Vol: 7, ISSUE 9, PP.112-123, ISSN NO : 0363-8057, 2021.

**23.** Poornima G and Lakshminarayan .C, "System Integration Framework for Smart City Applications", Journal of Huazhong University of Science and Technology, Vol.50, Issue 4, PP.01-19, May 2021, ISSN-1671-4512

**24.** Shilpa K.C and Lakshminarayan .C, "Optimized Low Power Dual Edge Triggered Flip-Flop with Speed Enhancement", International Journal of Image, Graphics and Signal Processing (IJIGSP), PP.50-63, Pub. Date: 2022-02-08; DOI: 10.5815/ijigsp.2022.

**25.** Shreekrishanadevaraya and C. Lakshminarayana "Design and Implementation of Speed Control for Three Phase Induction Motor using Active Front End Drive", International Research Journal of Engineering and Technology, (IRJET 2022), Vol: 9, Issue 9, PP.1-4, Sep 2022, ISSN: 2395-0056.

**26.** Chethan Raj. D, Prakash D B and C. Lakshminarayana, "Reverse droop control strategy with virtual resistance for low-voltage micro grid with multiple distributed generation sources", International Journal of Open Engineering De Gruyter, PP:1-12, Jan2023.

**27.** Shilpa K.C, Lakshminarayana C and Harshaveniwalli, "Design and Implementation Of Arithmetic Mean Filter Using Xilinx Generator", Pramana research Journal Vol: 14, Issue 08, ISSN NO : 2249-2976, 2024.

**28.** M N Suneetha and C.Lakshminarayana, "Hybrid Optimization Evolutionary Control Strategy for Micro-grid Power System", International Journal of Electrical

Engineering Springer-Verlag GmbH Germany, Issue 08, pp: 16339-16363 ISSN: 0011-9342 | Year July 2024; .(http://doi.org/10.1007/s00202-024-02591-6).

**29.** Lakshminarayana C. and Mohan M. R., "An Improved Load Flow Method for the Analysis of Pre/Post Fault Distribution Systems", IEEE Proceedings of India International Conference on Power Electronics, Chennai, pp. 239-246, 2006.

**30.** Lakshminarayana. C and Mohan.M.R, "A New Fuzzy Based power Factor Improvement and Voltage Limit Violation Minimization Technique for Electrical Power Distribution Systems", IEEE proceedings of third International conference on Artificial Intelligence in Engineering and Technology, Malaysia, pp.755-760,2006.

**31.** Shilpa K.C and C.Lakshminarayana, "Scheduling in High Level Synthesis using Discrete Evolutionary Programming" IEEE Proceedings of India Third International Conference on Computing, Commmunication and Network Technology, Chennai, July 2012.

**32.** Shruthi K J and C.Lakshminarayana, "High Frequency, Current Fed Double Forward Low Voltage High Current DC-DC Converter For Spacecraft Application", IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES 2012), Bangalore, December 2012.

**33.** Shilpa K.C and C.Lakshminarayana, "Natural Computation for Optimal Scheduling with ILP Modeling in High Level Synthesis", ELSEVIER Procedia International Conference on Information and Communication Technologies (ICICT 2014), Procedia Computer Science, vol 46 ,pp. 167 – 175,2015 .(http://creativecommons.org/licenses/by-nc-nd/4.0/).

**34.** Raju Hajare, C.Lakshminarayana. Sunil.C, Sumanth, and Anish.A.R; "Design and Evaluation of FinFET based digital circuits for high speed ICs"; IEEE International Conference on Emerging Research on Elctronices, Computer Secience and Technology(ICERECT-2015), Mandya,Bangalore, December 2015, 978-1-4673-9563-2/15/$31.00 ©2015 IEEE

**35.** Raju Hajare,C.Lakshminarayana. Sunil.C, Sumanth, and Anish.A.R; "Performance Evaluation of FinFET and Nanowire at Different technology nodes;" IEEE International Conference on Emerging Research on Elctronices, Computer secience And Technology(ICERECT-2015), Mandya, Bangalore, December 2015,; 978-1-4673-9563-2/15/$31.00 ©2015 IEEE.

**36.** Shilpa K.C and C.Lakshminarayana, "A Comparative Study for Optimal Schedulining In Architecture Level Synthis Using Different Strategies in Differential Evolution" ELSEVIER Procedia Computer Science International Conference on Advancees in computing and Communication,(ICACC2016), pp.167-175,Dec-2016. (DOI:10.1016/J.PROCS.2015.02.08).

**37.** Shilpa K.C and C. Lakshminarayana, "Nature inspired computation for optimal resource schedule in architecural level synthesis" Publications: ELSEVIER Procedia computer science International conference on Advances in computating and Communications (ICACC 2016), 2016

**38.** Shree Harsha K, C.Lakshminarayana, "Induction Motor Drive based Modelling and Simulation approach for Anchor Operation" IEEE International Conference on Smart Grids, Power and Advanced Control Engineering (ICSPACE2017) Bangalore, Oct 2017.

**39.** Manjunatha.M, C.Lakshminarayana "Low Voltage High Current Dc-Dc Converter Using Synchronous Rectification For Spacecraft Application", AICTE sponsored national Conference on Energy systyem and Energy Issues(ESEI-2011) , Bangalore, Feb 2011.

**40.** Md. Shaheriaz, C.Lakshminarayana Ms. Vasanthalakshmi K, and Mr. Prabhakar V: "Design of Low Power Wireless Sensor for Reducing Wiring Complexity of Aircraft Engine Control System",Second IEEE International on Electronics, Communication and Aerospace Technology (ICECA-2018), March 2018.

41. Mohammed Arfan and Lakshminarayana C, "VLC FOR UNDERWATER OPERATIONS" Third IEEE International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT-2018) https://ieeexplore.ieee.org/document/9001519
42. Mohammed Arfan and Lakshminarayana C, "Design and Development of Solar Electric Hybrid Heated Bed Smart Electric Stove" International Conference on Remote Engineering and Virtual Instrumentation REV2019 2019: Cyber-physical Systems and Digital Twins pp 367-378. https://link.springer.com/book/10.1007/978-3-030-23162-0
43. Mohammed Arfan and Lakshminarayana C, "Vision Intelligent kinetic opensource robot (VIKTOR-III)"; Second IEEE International Conference on Innovative mechanisms for industry applications(ICIMIA-2020). https://ieeexplore.ieee.org/document/9074936
44. Mohammed Ibadullah, Lakshminarayana C,Ajay Kumar s, Hakshay sundar and Sneha Srinivasan, " Design and Development of mobile Dashboard and Supporting Sensor Network for E-Rickshaw"; Fourth International Conference on Smart Systems and Inventive Technology (ICSSIT-2022).PP.330-334. DOI:10.1109/ICSSIT53264.2022.9716518, https://ieeexplore.ieee.org/xpl/conhome/9716239/proceeding

45. M N Suneetha and C Lakshminarayana; "Design of Parameters of Buck Converter Integrated to A Hybrid DC Micro Grid Using Genetic Algorithm", International Conference on Power, Control and Sustainable Energy Systems (ICPCSES-2022). DOI: https://doi.org/10.13052/rp-9788770229630
46. Sandya Kamashetty and C Lakshminarayana; "Implementation of Cyclo-converter For Speed Control of Induction Motor", IEEE Seventh International Conference on Computer Application in Electrical Engineering- Recent Advances (CERA-23), IIT Roorkee.
47. Harshitha H and Lakshminarayana C; "Design and Implementation of Power Board for Neonatal Infant Warmer"

*link: https://bmsce.ac.in/home/facultyProfile/56/DrC-LAKSHMINARAYANA*

*https://scholar.google.com/citations?user=HpOuDWYAAAAJWebsite*

*https://orcid.org/my-orcid?orcid=0000-0002-9313-3982*

*https://www.scopus.com/authid/detail.uri?authorId=24344195600*

*https://www.webofscience.com/wos/author/record/E-9632- 2018*