

# DHANALAKSHMI SRINIVASANENGINEERING COLLEGE

(Autonomous)

(Approved by UGC & AICTE and Affiliated to Anna University, Chennai)

(Recognized under section 2(f) & 12B of the UGC Act, 1956)

(NAAC Accredited with 'A' Grade and NBA Accredited Programmes)

Perambalur - 621212, Tamil Nadu, India.



## Research & Development Cell

### The R & D Newsletter

Academic Year 2021 - 2022

### About the R & D Cell

The "Research and Development Cell" (RDC) is an integral part of the Dhanalakshmi Srinivasan Engineering College (DSEC) and is committed to creating a strong and vibrant higher education system emphasizing active research, innovation, and technology development. The RDC strives to promote research activities to meet the societal challenges of our country as well as pressing technological issues at the global level. To attain the objectives, the RDC of the DSEC plays a crucial role in many facets: in disseminating research findings to students and faculties of the DSEC through various scientific events (conferences, Hackathon, Expo, Workshops and so on) as well as through reputed scientific publications; in securing funding for researchers as fellowships, sponsorships, and grants for research projects; in identifying and protecting intellectual property (IP) generated through research activities. The R & D Cell also ensures that research activities adhere to ethical standards, regulatory requirements, and best practices.

### Contents

**Journal Publications**

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## JOURNAL PUBLICATIONS

- ✚ T. Geetha - “Food Safety Transparency Traceability system Based on ML Enabled Block chain Technology” - IJSRT Volume 8, Issue 3, March 2022, ISSN 2395-1052.
- ✚ R. Rajesh - “Design and Analysis of Conceptual WIG craft” - IJERT Volume 3, Issue 2, APR 2022, ISSN 2135-1954.
- ✚ Dr. K. Velmuruganhan – “Analysis of Emissions trapped on energy balance variables for spark ignition engine modifying acommercial diesel engine” - India Journal of Chemical Technology, Volume 29, June 2022.
- ✚ V. Gokulakrishnan - “Privacy Preserving Deep Learning Using secure Multiparty Computation in Cloud Computing” in IJSART Volume 8, Issue 5, May 2022, ISSN 2595-1052.
- ✚ R. Aarthy - “An automated system to limit covid-19 using facial mask detection and face recognition system using deep neural network” in IJRPR Volume 2, Issue 5, May 2022, ISSN 2582-7421.
- ✚ S. Francis Shamli - “Drug Recommendations Based On Aspect Level Reviews Using Machine Learning Algorithms” in International Journal of Innovative Research in Engineering Volume 3, Issue 2, March 2022, ISSN 2582-8746.
- ✚ K. Aswin - “Epileptic seizure detection based on bidirectional gated recurrent unit network” in IJSRT Volume 8, Issue 5, May 2022, ISSN 2395-1052.

- ✚ Chinnadurai - “E-commerce based chatbot system using text mining and machine learning algorithm” in IJSART Volume – 8, Issue 5, May 2022, ISSN 2395-1052.
- ✚ P. Arulmozhi - “A Secure and Effective Image Retrieval Based on Robust Features” <https://doi.org/10.4018/978-1-7998-9640-1.ch005>, April 2022.
- ✚ D. Katherasanhas – “Smart Energy” - International Journal of Advanced Research in Science, Communication and Technology (IJARSCT) Volume 2, Issue 1, ISSN: 2581-9429, Page No. 369-377, April 2022.
- ✚ G. Chandrasekarhas “IoT Based Water Pollution Monitoring RC Boat” - International Journal of Advanced Research in Science, Communication and Technology (IJARSCT) Volume 2, Issue 7, ISSN: 2581-9429, Page No. 705-725, May 2022.
- ✚ K. Vigneshwari - "Effect of osmotic dehydration in ivy gourd" - Journal of African food science and technology, Vol 22(3), 2022.
- ✚ M. Yashinihas - "Characterization of Antibody Immobilization on Chitosan/Gelatin-Modified Electrode and Its Application to Bacillus cereus Detection in Cereal-Based Food" - Food Anal. Methods 15, 2382–2393, 2022.
- ✚ Dr. K. Anbarasan - “Design and Implementation of a Self- Powered Dual Stage Energy Harvesting System” - International Journal on Application in Electrical and Electronics Engineering, Volume 8, Issue 1, 2022.

- ✚ N.Arun kumar - “Design and Implementation of a Self- Powered Dual Stage Energy Harvesting System” - International Journal on Application in Electrical and Electronics Engineering, Volume 8, Issue 1, 2022.
- ✚ R.Anbarasi - “Experimental Investigation on Mechanical properties of concrete by Partial Replacement with Brick powder, Metakolin and Flyash” - International Journal for Science and Advance Research in Technology (IJSART), Volume 8, Issue 6, June 2022.
- ✚ R. K. Manikandan - “Retrofitting of Reinforced Concrete beam using CFRP with various Adhesive” - Materials Today Proceedings, 12, Volume 22, 2214-7853, August 2022.
- ✚ A. Yogeswaran, “An Efficient Wideband Low Noise Amplifier (Wlna) Using Advanced Design System” - Microprocessor and Microsystems
- ✚ R. Gayathri – “Rfid-Based Mobile Indoor Assistiv Navigation and Localization for Visually Impaired People” - International Journal of Scientific Research and Engineering Development.
- ✚ J. Arunprasad, R. Thirugnanasambantham - “Performance and emissions of Chlorella vulgaris with ruthenium oxide in CI engines” - Fuel, Volume 314, 122764, April 2022.
- ✚ D. Manikandan - “Retrofitting Of Reinforced Concrete Beams Using Cfrp With Various Adhesive” - Materials Today: Proceedings, 2214-7853, August 2022.
- ✚ R. Thirugnanasambantham, Dr. J. Arunprasad, Mr. T. Jayakumar, Mr. R. Rajesh, Mr.S. Sugumar - “Performance and Emissions Characteristics of

Soyabean Biodiesel in Compression Ignition Engine” - Recent Advances in Materials and Modern Manufacturing, Volume 165, May 2022.

- ✚ B. Karthiga – “Need of Skill Based Module to enrich professional competencies in buddy Engineers” - GIS Science Journal, Vol. 09, Issue 4, 105-111, 2022.
- ✚ M. Rekha – “Effective implementation of Experimental learning in Higher Education Institutions” - Gradiva Journal, Volume 8, Issue 5, May 2022.

## CONFERENCE PAPERS

- ✚ T. Geetha – “A Novel Impact of Diabetic Retinopathy on Glaucoma Retinalimages using” - AICTE sponsored International Conference on Newer Engineering Concepts and Technology (ICONNECT 2K22) held on 28.04.2022 - 29.04.2022.
- ✚ R. Aarthy – “An Automated System To Limit Covid-19 Using Facial Mask Induction And Face Recognition System Using Deep Neural Network” - AICTE sponsored International Conference on Newer Engineering Concepts and Technology (ICONNECT 2K22) held on 28.04.2022 - 29.04.2022.
- ✚ Dr. K. Anbarasan - “Design and Implementation of Multilevel inverter for Electric Vehicle” - International Conference on newer engineering concepts and technology (ICONNECT-2K22), K. Ramakrishnan College of Technology, Trichy on 28.4.2022.

- ✚ K.Preetha - “Cluster voltage balancing for Cascaded Bridge (CHB) STATCOM - ICONNECT-2K22 held at “K. Ramakrishnan College of Technology, Trichy on 28.2.2022.
- ✚ N. Arunkumar - “Solar Energy Based Electric Vehicle Battery Charging Using LQR plus PDIC Voltage Lift Split Inductor Type Boost Converter - ICETEVS-22 held at “SRMTRPEC, Trichy” on 12.3.2022.
- ✚ J. Nagendran - “Design and Performance Analysis of 10MW solar power plant in Perambalur District” - International Conference on newer engineering concepts and technology (ICONNECT-2K22), K. Ramakrishnan College of Technology, Trichy on 28.4.2022.
- ✚ V. Vinothkumar - “Design and implementation of a Self Powered Dual Stage Energy Harvesting System - “ICETEVS-22” held at “SRMTRPEC, Trichy” on 12.3.2022.
- ✚ C. P. Vignesh - “Design of Autonomous Interface Circuit for Piezoelectric Micro-Power Generation - “ICONNECT-2K22” held at “K.Ramakrishnan College of Technology, Trichy” on 28.2.2022.
- ✚ M. Kathamuthu - “Model Predictive control for dual matrix converter fed induction motor with reduced torque ripple” - IRPEE-2.0 held at Arasu engineering college, Kumbakonam on 20.3.2022.
- ✚ M. Bharath - “An interweaved generalized integrator (IGI) based control for a single stage Grid interfaced solar PV energy conversion - ICETEVS-2 held at “SRMTRPEC” on 12.3.2022.

- ✚ R. Anbarasi - “Experimental Investigation of Chicken Feather ash concrete by Replacing M Sand with Chicken feather ash” - National Conference on Recent Trends in Various Departments NCRT 2022 held at “MREC” on 03.06.2022.
- ✚ R. K. Manikandan - “Retrofitting of Reinforced Concrete beam using CFRP with various Adhesive - International Conference on Advanced Materials and Modern manufacturing (ICAMMM 2022) held at Adhi College of Engineering and Technology on 25.03.2022 to 27.03.2022.
- ✚ N. Sunmathi - "Study of steel fiber reinforced fly ash (Class-F) based alkali activated geopolymer concrete - International Conference on Health, Energy and Materials -2022 held at “Hindustan institute of Science and Technology- Chennai” on 28.04.2022.
- ✚ T. Jayakumar - “Influences of titanium dioxide nano additives on the performance and emission characteristics of Pumpkin biodiesel -1<sup>st</sup> International Virtual Conference on Advances in Automobile, Manufacturing and Mechanical Engineering” held at Eswari Engineering College, Chennai.

## **AWARDS RECEIVED**

- ✚ Mr. T. Ayyasamy, HOD/ Aero have received “Best Researcher Award” at International Conference from Nehru group of Institutions, Coimbatore.
- ✚ Dr. R. Gopi, HOD / IT, got Research supervisorship from Anna University Chennai.

- ✚ Mrs. P. Rajeswari - Awarded the Ph. D in Anna University, Chennai under the Faculty of Information and Communication, Title of the Thesis: Performance Analysis of Microstrip Patch Antennas using Soft Computing Approach.
- ✚ Dr. J. Arunprasad received “Man of Educational Excellence Award” from Global Icon and International Star Book of Records.

## COURSES COMPLETED

- ✚ Mr. V. Gokulakrishnan - Completed NPTEL online Course in “Introduction to Machine Learning”, April 2022.
- ✚ Mrs. S. R. Sowmiya - Completed NPTEL online Course in “Deep Learning”, April 2022.
- ✚ Mr. S. Saravanan - Completed NPTEL Course in “Introduction to Machine Learning”, April 2022.
- ✚ Mrs. R. Anbarasi - Completed NPTEL Online Course on “Advanced topics in the Science and Technology”.
- ✚ Dr. B. Karthiga - Completed AICTE Sponsored NITTT Course on “Technology Enabled Learning”
- ✚ Kasiraja G - Completed online Course in “Cloud Computing”, SWAYAM NPTEL.
- ✚ Mohan Vhas - Completed online Course in “Cloud Computing”, SWAYAM NPTEL.



- ✚ Nagulan N - Completed on “Python” in Sololearn.
- ✚ Varalakshmi P, Swathi S - Completed on “Python” in Great Learning.
- ✚ Kasiraja G - Completed “Complete SQL boot camp” on Udemy.
- ✚ Bhavanishahas B - Completed online course on “Backend web development with bootcamp and Nodejs aurella Modern”, Shapeai european university.