Dr Shivaputra

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Address: Bengaluru , Karnataka , India - 560056
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AREAS OF EXPERTISE

Electrical and Electronic Engineering

Image Processing; Computer Vision; Pattern Classification; Artificial Intelligence; Soft Computing; Mathematical image modeling and analysis, Physics: Materials Science

EDUCATION

Post Doctoral Fellowship *2025*

NITK, Surathkal

Ph.D. *2017*

Jain University

M.Tech *2009*

BMS College of Engineering, Bangalore

B.E. *2002*

University of Visvesvaraya College of Engineering

PROFESSIONAL EXPERIENCE

Dr Ambedkar Institute of Technology, Bengaluru *2003 - Present*

Professor

Bengaluru Urban

HONOURS AND AWARDS

Best performer award for outstanding performance in academic and Research activities
2023

Awarded by: Dr. Ambedkar Institute of Technology, Bangalore on " World Knowledge Day - 2023"

Elite Medalist in Electronic Waste Management -Issues and Challenges *2021*

Awarded by: NPTEL Online Certification, Funded by Ministry of MHRD, Govt. of India

Elite Medalist in Microelectronics Devices to Circuits *2019*

Awarded by: NPTEL Online Certification, Funded by Ministry of MHRD, Govt. of India

2nd Prize for Poster Presentation *2017*

Awarded by: Karnataka Science and Technology Academy Government of Karnataka, DST andVijayanagara Sri Krishnadevaraya University, Ballari: National Conference on Impact of Science and Technology on Society and Economy

PROFESSIONAL MEMBERSHIPS

IEEE *2022*

Senior Member

IAENG (International Association of Engineers) *2018*

Life Member

Singapore Institute of Electronics (SIE) *2018*

Life Member

International Association of Computer Science and Information Technology(IACSIT) *2018*

Life Member

Cryptology Research Society of India *2013*

Life Member

ISTE *2003*

Life Member

COMMITTEE MEMBERSHIPS

Journal of Supercomputing *2022*

Revivewer

Research and Development *2020*

Coordinator and Member

Board of Examination *2015*

Coordinator and Member

Board of Studies *2014*

Coordinator and Member

PATENTS

Planar Inverted-F Antenna (PIFA) With Improved Bandwidth And Impedance

Inventor(s): Shivaputra, Praveen K B, Pramod K B, Rukhsana Arif Sayed, Alam Shaikh, Benakanahalli Puttappa Pradeep Kumar and Shankar Bhimappa Bandiwaddar

Assignee: Dr. Ambedkar Institute of Technology | Published: 2018-05-04

MULTI BAND MICROSTRIP PATCH ANTENNA

Inventor(s): Shivaputra, Praveen K B, Pramod K B, Rukhsana Arif Sayed, Alam Shaikh, Benakanahalli Puttappa Pradeep Kumar and Shankar Bhimappa Bandiwaddar

Assignee: Dr. Ambedkar Institute of Technology | Published: 2018-06-22

DESIGN OF LUMINOUS LIGHT FOR VEHICLE MONITORING SYSTEM USING IOT

Inventor(s): R Karunamoorthi, Kanamarlapudi Venkata S SurendraKumar, S Mahendran, Radha Kuruva, Makarand Upadhyaya, M Jemimah Carmichael, Nadeem Ahmad Khan, Arshad Husain, Harsha R, Shwetha M, S Senthil Kumar, T C Manjunath, Shivaputra, Meenakshi L Rathod and Neeraj Chandnani

Assignee: Erode Sengunthar Engineering College, Erode | Published: 2018-05-31

Development of IoT based underground wire fault detection system

Inventor(s): S Jaividya and Shivaputra

Assignee: K S Rangaswamy College of Technology, Tiruchengode, Tamilnadu | Published: 2021-02-26

DWT Based Feature Extraction for Iris Recognition

Inventor(s): Harsha R, Meenakshi L Rathod, Shivaputra, Shwetha M, Chetan S, Ramesh A and Mahalinga V Mandi

Assignee: Dr. Ambedkar Institute of Technology | Published: 2021-01-06

SMART WHEELCHAIR FOR PHYSICALLY DISABLED PEOPLE USING IOT

Inventor(s): C. R. VIJAY, DR. LATHA P, DR. HARISHCHANDER ANANDARAM, DR. AANCHAL TEHLAN, K R SWETHA, RUPALI NARENDRA AGME, DR. SHIVAPUTRA, DR.VAISHALI N. AGME

Assignee: | Published: 2022-06-17

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING POWERED IMPACT FOR FUTURE OF HEALTH CARE

Inventor(s): Paramjeet Kaur, G. Sujatha, Apurvakumar Pandya, Vipparla Aruna, Krishna Suresh B V N V

Anjum Parvez, Shivaputra and Satish Kumar Das
Assignee: Paramjeet Kaur | Published: 2023-05-19

PLANT LEAF CLASSIFICATION AND DISEASE DETECTION USING PROPOSED CNN MODEL

Inventor(s): Sejal Thakkar, Chirag Patel, Vipul Rajabhai Garchar, Vipul Rajabhai Garchar and Shivaputra
Assignee: Sejal Thakkar | Published: 2023-06-16

PLANT HEALTH MONITORING DEVICE

Inventor(s): Tamal Mondal, Deepak Kholiya, Periasami Nagapppan, Ranjit Kumar, Vijaya Gajanan Shendge, D. Kavitha, Shivaputra, Sumanta Bhattacharya and Pooja Nagpal
Assignee: Tamal Mondal, Deepak Kholiya, Periasami Nagapppan, Ranjit Kumar, Vijaya Gajanan Shendge, D. Kavitha, Shivaputra, Sumanta Bhattacharya and Pooja Nagpal | Published: 2024-04-23

PUBLICATIONS

1. **High-Q Plasmonic Resonator for Volatile Organic Compound Detection**
   Mehta S.;Shivaputra S.;Ramesh S.;Mandi M.V.;Singh M.
   IEEE Transactions on Plasma Science , Vol. (2025) , pp.

2. **Improving Food Safety by IoT-based Climate Monitoring and Control Systems for Food Processing Plants**
   Kolikipogu R.;Shivaputra ;Muniyandy E.;Maroor J.P.;Lakshmi G.V.R.;Konduri B.;Naveenkumar R.
   Remote Sensing in Earth Systems Sciences , Vol. 8 (2025) , pp. 387-399

3. **Microwave photonic signal generation using a quadratic FBG based optoelectronic oscillator**
   Renuka B.;Shivaputra ;Ramesh S.;Mandi M.V.;Dasan M.;Singh M.
   Physica Scripta , Vol. 100 (2025) , pp.

4. **DynamicVisionCore: A Predictive Object Tracking Framework for Real-Time Robotics Applications**
   Suneel S.;Rallan R.;Jayakarthik R.;Naveenkumar R.;Dubey A.;Shivaputra
   Proceedings of 8th International Conference on Trends in Electronics and Informatics Icoei 2025 , Vol. (2025) , pp. 1567-1574

5. **Analyse and Predict the Detection of the Cyber - Attack Process by Using a Machine-Learning Approach**
   Dr. Charanjeet Singh;rajesh singh;shiva putra;Mohit Tiwari;BRAMAH HAZELA
   OpenAlex , Vol. (2024) , pp.

6. **Fuzzy-based IoMT system design challenges**
   Kolikipogu R.;Shivaputra ;Upadhyaya M.
   Advances in Fuzzy Based Internet of Medical Things Iomt , Vol. (2024) , pp. 25-37

7. **Analyse and Predict the Detection of the Cyber-Attack Process by Using a Machine-Learning Approach**
   Singh C.;Singh R.;Shivaputra ;Tiwari M.;Hazela B.
   Eai Endorsed Transactions on Internet of Things , Vol. 10 (2024) , pp.

8. **Comparative landmark detection on stops of dysarthric speech**
   Sunitha, S. V.;Shivaputra;Soundeswaran, S.
   Biomedical Signal Processing and Control (2023)

9. **IOT BASED VISIBLE LIGHT COMMUNICATION SYSTEM FOR BIOMEDICAL APPLICATION**

   KDV Prasad, Pooja Singh, Shivaputra, P. Veeramanikandan, Venkatesan Hariram, Dillip Narayan Sahu

   Acta Biomedica , Vol. 94 (2023) , pp. 366-382

10. **Comparative landmark detection on stops of dysarthric speech**

    Sunitha S.V.;Shivaputra ;Soundeswaran S.

    Biomedical Signal Processing and Control , Vol. 79 (2023) , pp.

11. **A Novel Approach of Hyperspectral Imaging Classification using Hybrid ConvNet**

    International Journal of Advanced Computer Science and Applications (2022)

12. **Cloud Computing and Networking for SmartFarm AgriTech**

    Rathod M.L.;Shivaputra A.;Umadevi H.;Nagamani K.;Periyasamy S.

    Journal of Nanomaterials , Vol. 2022 (2022) , pp.

13. **FPGA Based Register Access and Memory Control for 5G Beamforming Processing**

    Rakshitha M.;Shivaputra ;Prabhu G.;Kumar C.V.N.

    2022 IEEE North Karnataka Subsection Flagship International Conference Nkcon 2022 , Vol. (2022) , pp.

14. **FPGA Implementation of Efficient I2C Protocol**

    NASREEN, Meenakshi L Rathod and Shivaputra

    TELEMATIQUE , Vol. 21 (2022) , pp. 2165-2174

15. **Improving Intelligibility of Dysarthric Speech using Landmark Detection and Modifications on Distorted Stops**

    S. V. Sunitha, Shivaputra and S. Soundeswaran

    TELEMATIQUE , Vol. 21 (2022) , pp. 4556 – 4576

16. **Precise identification of objects in a hyperspectral image by characterizing the distribution of pure signatures**

    Panchal S.M.;Shivaputra

    International Journal of Electrical and Computer Engineering , Vol. 12 (2022) , pp. 6068-6078

17. **A Novel Approach of Hyperspectral Imaging Classification using Hybrid ConvNet**

    Panchal S.M.;Shivaputra

    International Journal of Advanced Computer Science and Applications , Vol. 13 (2022) , pp. 273-281

18. **An Efficient FPGA Architecture to Automatically Detect the Condition of Orange Fruit**

    N Renuka;Shivaputra;MD Rudresh;L Rathod Meenakshi

    International Conference on Integrated Intelligent Computing Communication & Security (ICIIC) , Vol. 3rd International Conference on Integrated Intelligent Computing Communication & Security (ICIIC 2021) (2021) , pp.

19. **Analysis and Design of an Optical Biosensor Using Mathematical Modeling**

    Lecture Notes in Mechanical Engineering (2021)

20. **Object Classification from a Hyper Spectral Image Using Spectrum Bands with Wavelength and Feature Set**

    Panchal S.M.;Shivaputra

    Lecture Notes in Networks and Systems , Vol. 230 (2021) , pp. 340-350

21. **Retraction:A cluster-based distributed cooperative spectrum sensing techniques in cognitive radio**

    Shwetha N.;Gangadhar N.;Niranjan L.;Shivaputra

Lecture Notes on Data Engineering and Communications Technologies , Vol. 59 (2021) , pp. 225-246

22. **Smart Seat Management with Contactless Ticketing IN Public Transport**

    Kavya Shivashankar, Shivaputra ,Meenakshi.L.Rathod, Harsha.R d
    Smart Seat Management with Contactless Ticketing IN Public Transport , Vol. Issue: 7 (2021) , pp. 12393-12405

23. **A Generic Review on Use of Artificial Intelligence in Robotics**

    Meenakshi L Rathod
    Design Engineering , Vol. (2021) , pp.

24. **Analysis and design of an optical biosensor using mathematical modeling**

    Sowmya Padukone G.;Uma Devi H.;Shivaputra ;Rathod M.L.
    Lecture Notes in Mechanical Engineering , Vol. (2021) , pp. 481-491

25. **Photocatalytic degradation of organic dye by Cd-Fe doped ZnO nanoparticles**

    H G Anil kumar, K. Sudheer, S Soundeswaran, Shivaputra and C Nanjunda Swamy
    6th International Conference on Nanoscience and Nanotechnology , Vol. (2021) , pp. 923-924

26. **Survey on the Intelligibility of Dysarthric Speech**

    Sunitha S V, Shivaputra and S Soundeswaran
    Journal of Xidian University , Vol. 14 (2020) , pp. 1472-1484

27. **Design And Efficient Implementation Of Floating Point Multiplier Using Pipelined Architecture**

    RENUKA N and SHIVAPUTRA
    Proceedings of AICTE Sponsored 1st International E-Conference On "Recent Trends & Development in Information and Communication Engineering" (ICRTDIC-2020) 23rd October 2020, ISBN : 9788192710471 , Vol. (2020) , pp. 247-252

28. **Chaotic Based Grain 128-Bit Stream Cipher for Image Encryption**

    Meghana S Ramesh;Dr. Shiva Putra
    SSRN Electronic Journal (2020)

29. **A COMPREHENSIVE ANALYSIS OF FRUIT AND VEGETABLE IMAGE CLASSIFICATION TECHNIQUES**

    RENUKA N and SHIVAPUTRA
    "Mathematical Sciences and Computational Intelligence , Vol. (2020) , pp. 29-40

30. **A Research on Mystic Alexa Mirror**

    International Journal of Innovative Technology and Exploring Engineering (2019)

31. **Efficient implementation of remote terminal module for mil-std 1553b applications**

    Santhosh Reddy S.;Shivaputra
    International Journal of Scientific and Technology Research , Vol. 8 (2019) , pp. 1490-1496

32. **A Research on Mystic Alexa Mirror**

    International Journal of Innovative Technology and Exploring Engineering (IJITEE)ISSN: 2278-3075, , Vol. 9 (2019) , pp. 543-547

33. **IOT Based Garden Automation and WEB Based Analysis**

    Shivaputra, Meenakshi L. Rathod, M. Shwetha, R. Murali and S. Sukumar
    Journal of Advanced Research in Dynamical and Control Systems , Vol. 10 (2018) , pp. 1761-1767

34. **Comp-bit-list size improvement in mespotine RLE and its applications**

    Putra S.;Sheshadri H.S.;LOKESHA V.

Gazi University Journal of Science , Vol. 29 (2016) , pp. 971-980

35. **A Naïve Visual Cryptographic Algorithm for the Transfer of Compressed Medical Images**
Shivaputra Shivaputra;HS Sheshadri;V Lokesha
Bulletin of Electrical Engineering and Informatics (2016)

36. **Comp-Bit-List Size Improvement in Mespotine RLE and its Applications**
Putra, Shiva;Sheshadri, H. S.;Lokesha, V.
Gazi University Journal of Science (2016)

37. **An Exquisite Approach For Image Compression Technique Using Lossless Compression Algorithm For ROI & Non-ROI Regions**
Shivaputra, H S Sheshadri and V Lokesha
International Journal of Computational Science, Information Technology and Control Engineering (IJCSITCE) , Vol. 2 (2015) , pp. 1-13

38. **An Efficient Lossless Medical Image Compression Technique For Telemedicine Applications**
Shivaputra, H S Sheshadri and V Lokesha
Computer Applications: An International Journal (CAIJ) , Vol. 2 (2015) , pp. 63-69

39. **Design of high security and performance system for storage devices using AES**
Bellikatti V.;Chetan S.;Shivaputra;Kushal K.
Advances in Intelligent Systems and Computing , Vol. 174 AISC (2013) , pp. 353-359

40. **EOG Based Eye Movement Controlled Human Machine Interface**
Chetan S and Shivaputra
The 6th International Conference on Chaotic Modeling and Simulation, CHAOS 2013, Yeditepe University. Istanbul, Turkey , Vol. (2013) , pp. 141-148

41. **Laceability in the brick product of cycles**
Murali R.;Shivaputra ;Chetan S.
Chaos 2013 6th Chaotic Modeling and Simulation International Conference Proceedings , Vol. (2013) , pp. 419-428

42. **Design and implementation of a RFID based prototype SmArt LibrARY (SALARY) system using wireless sensor networks**
Kushal K.;Muttanna Kadal H.;Chetan S.;Shivaputra
Advances in Intelligent and Soft Computing , Vol. 167 AISC (2012) , pp. 499-505

43. **Design and implementation of a Smart AuTomated OUT-ward (SAT OUT) system using ARM processor for aircrafts**
Kushal K.;Chetan S.;Shivaputra
Proceedings 4th International Conference on Computational Intelligence and Communication Networks Cicn 2012 , Vol. (2012) , pp. 463-467

44. **A QPSK modulated software defined radio receiver using TDM for multiple channel reception**
Shruthi M.L.J.;Shivaputra ;Harsha B.K.
Proceedings of 2012 IEEE International Conference on Advanced Communication Control and Computing Technologies Icaccct 2012 , Vol. (2012) , pp. 305-309

45. **Spectrogram study of echo and reverberation - A novel approach to reduce echo and reverberation in room acoustics**
Pushpalatha G.S.;Shivaputra ;Mohan Kumar N.