Shrish Bajpai

Dedicated Assistant Professor with experience in teaching research and service in the area of electronics engineering. Combines a focus on student achievement with a passion for scholarly work, presenting and publishing at conferences, and maintaining thought leadership in peer-reviewed journals. Deeply invested in earning tenure through administrative service, committee contributions, and an achievement-oriented approach to teaching.

Appointments

Assistant Professor (July, 2012 - Present) at Department of ECE, Faculty of Engineering, Integral University, Lucknow.

Senior Software Test Engineer (October, 2006 - September, 2010) at "STAG Software Private Limited", Bangalore.

Research Interest : Image Compression, Optical fiber structure & Engineering Education.

Research Tools : Matlab & Comsol

Education

Academic Qualification	Board/University	School/Institute/University	Year	Marks
Doctoral (Hyper spectral Image Processing,)	Dr. A.P.J. Abdul Kalam Technical University, Lucknow	Kamla Nehru Institute of Technology, Sultanpur	2014-2020	-
M.Tech (Digital Communication)	Gautam Buddh Technical University, Lucknow	Bundelkhand Institute of Engineering & Technology, Jhansi	2010-2012	74.00 %
B.Tech (Electronics & Telecommunication)	Uttar Pradesh Technical University, Lucknow	Mahatma Gandhi Mission's College of Engineering & Technology, Noida	2002-2006	66.35 %
10+2 (Intermediate Examination)	Uttar Pradesh Board of High School and Intermediate Education, Allahabad	Ram Sevak Yadav Smarak Inter College, Barabanki	1999-2001	70.80 %
10 (High School Examination)	Uttar Pradesh Board of High School and Intermediate Education, Allahabad	Pioneer Montessori School, Barabanki	1997-1999	67.83 %

Fellowship

1. Received M.H.R.D. assistantship during M.Tech studies [2010-2012] at Bundelkhand Institute of Engineering & Technology, Jhansi.
2. Received scholarship during classes VI-VIII by U.P. Government.

Teaching

Undergraduate Level : Electromagnetic Field Theory, Basic Electronics, Mechatronics, Signal and Systems, Control System

Post Graduate Level : Information Theory & Coding, Semiconductor Devices Modeling & Circuit Simulation

Undergraduate Project Guided & Post Graduate Thesis

Degree Level	Completed	Progress	University
B.Tech	11	1	Integral University, Lucknow
M.Tech	5	0	Integral University, Lucknow
PhD	0	4	Integral University, Lucknow

National Examination Qualified: Qualified GATE-2010 with gate score 377, GATE-2014 with gate score 529 & GATE-2016 with gate score 416.

Completed the four NPTEL courses "Digital Image Processing of Remote Sensing Data" (71%), "Introduction to Geographic Information System" (79%), "Digital Image Processing of Satellite Data" (72%) and "Remote Sensing Essentials" (100%).

Departmental/University Responsibility

- Departmental coordinator for the Learning Management System (LMS).
- Departmental NAAC Criteria 3 Incharge
- Departmental Time Table Incharge (creation of the time table of the classes & faculties)
- Member ECE departmental Board of Studies (BoS)
- ACS for End Semester Examination (Odd Semester 2023-2024)

NPTEL Courses

- Introduction to Geographic Information System
- Digital Image Processing of Remote Sensing Data
- Remote Sensing and Digital Image Processing of Satellite Data
- Remote Sensing Essentials

Reviewer of Journals

- Multimedia Tools and Applications
- Arabian Journal for Science and Engineering
- The Visual Computer
- Wireless Personal Communications
- Image and Vision Computing
- Journal of Visual Communication and Image Representation
- Renewable Energy Focus
- Signal Processing: Image Communication
- Journal of Intelligent & Fuzzy Systems
- The Visual Computer

Workshop & FDP attended

1. Attended Faculty Development Workshop organized by Tata Consultant Service, Lucknow on July 28, 2012.

2. Attended Workshop on Statistical Tools and R Software (STARS - 2015) organized by Department of Mathematics & Statistics, IIT Kanpur, Kanpur from September 17-21, 2015.

Journal Publications

SCIE : 11   ESCI : 3   Scopus : 32

Scopus Citations : 126   Google Scholar Citation : 316

Major Publications
Published Articles

1. Harshit Chandra, **Shrish Bajpai**, Monauwer Alam, Vishal Singh Chandel, Amit Kumar Pandey, and Digvijay Pandey. "3D-Memory efficient listless set partitioning in hierarchical trees for hyperspectral image sensors." Journal of Intelligent & Fuzzy Systems, Volume 45, Issue 6, pp 11163-11187 (SCIE ; IF = **2**).

2. **Shrish Bajpai** (2023), Low Complexity and Low Memory Compression Algorithm for Hyperspectral Image Sensors, Wireless Personal Communications, 131(2), 805-833. doi : 10.1007/s11277-023-10455-8 (SCIE ; IF : **2.2**).

3. **Shrish Bajpai** (2023), Low complexity image coding technique for hyperspectral image sensors, Multimedia Tools and Applications, 82(20), 31233–31258. doi : 10.1007/s11042-023-14738-x. (SCIE ; IF : **3.6**).

4. Abhinav Gupta, Amit Kumar Pandey, Shipra Upadhyay, Vidyadhar Gupta, Tarun Kumar Gupta, Digvijay Pandey, **Shrish Bajpai**, Vishal Singh Chandel (2023) "The Investigation of Gate Oxide and Temperature Changes on Electrostatic and Analog/RF and Behaviour of Nanotube Junctionless Double-Gate-All Around (NJL-DGAA) MOSFETs using Si Nano-materials", Silicon, 15(12), 5197–5208. doi : 10.1007/s12633-023-02436-0 (SCIE ; IF = **3.4**)

5. Prince Rajpoot, Vishal Singh Chandel, Amit Kumar Pandey, Shivendu Mishra, Vikas Patel, **Shrish Bajpai**, Digvijay Pandey (2023), "Disease Detection in Different Plants to Save Environment Using IOT, Image Processing and Machine Learning: A Review", International Journal of Global Warming. doi : 10.1504/IJGW.2023.10057219 (SCIE ; IF = **0.9**).

6. **Shrish Bajpai** (2022), Low complexity block tree coding for hyperspectral image sensors, Multimedia Tools and Applications, 81(23), 33205–33232. doi : 10.1007/s11042-022-13057-x (SCIE ; IF : **3.6**).

7. **Shrish Bajpai**, Naimur Rahman Kidwai, Harsh Vikram Singh & Amit Kumar Singh (2022), A low complexity hyperspectral image compression through 3D set partitioned embedded zero block coding, Multimedia Tools and Applications, 81(1), 841–872. doi : 10.1007/s11042-021-11456-0 (SCIE ; IF : **3.6**).

8. Divya Sharma, **Shrish Bajpai**, Y. K. Prajapati, and R. Tripathi (2020). "112 Gb/s coherent NG-PON2 downstream transmission using advance polarization multiplexed modulation formats." Optoelectronics and Advanced Materials-Rapid Communications 14, no. May-June 2020 (2020): 224-232 (SCIE ; IF = **0.9**).

9. **Shrish Bajpai**, Naimur Rahman Kidwai, Harsh Vikram Singh & Amit Kumar Singh (2019), A Low memory block tree coding for hyperspectral images, Multimedia Tools and Applications, 78, 27193–27209. doi : 10.1007/s11042-019-07797-6 (SCIE ; IF : **3.6**).

10. **Shrish Bajpai**, Divya Sharma, Monauwer Alam, Vishal Singh Chandel, Amit Kumar Pandey, Suman Lata Tripathi (2023), "Curvelet transform based compression algorithm for low resource hyperspectral image sensors", Journal of Electrical and Computer Engineering, 1-18. doi : 10.1155/2023/8961271 (ESCI IF = **2..4**).

11. Sushant Khare, Abhishek Chatterjee, **Shrish Bajpai**, P.K. Bharati (2016), "Manufacturing Engineering Education in India", Management and Production Engineering Review, 7(1), 40-44. doi : 10.1515/mper-2016-0005 (ESCI IF = **1.4**).

12. Sushant Khare, **Shrish Bajpai**, PK Bharati (2015), "Production engineering education in India", Management and Production Engineering Review, 6(1), 21–25. doi : 10.1515/mper-2015-0004 (ESCI IF = **1.4**).

13. **Shrish Bajpai**, Harsh Vikram Singh, Naimur Rahman Kidwai (2019), "3D modified wavelet block tree coding for hyperspectral images", Indonesian Journal of Electrical Engineering and Computer Science, 15(2), 1001-1008. doi : 10.11591/ijeecs.v15.i2.pp1001-1008 (Scopus).

14. **Shrish Bajpai**, Naimur Rahman Kidwai, Harsh Vikram Singh (2019) "3D Wavelet Block Tree Coding for Hyperspectral Images", International Journal of Innovative Technology and Exploring Engineering, 8(6C), 64-68 (Scopus).

15. Utkarsh Awasthi, Faraz Yusuf Khan, Noman Ahmad, **Shrish Bajpai** (2019), "Statistical Evaluation of Renewable Energy Technologies and Initiation Programs in Rural Area of Lakhimpur-Kheri, Uttar Pradesh, India: Prevailing Schemes, Barriers Faced and Future Scope", International Journal of Innovative Technology and Exploring Engineering, 8(5), 997-1002 (Scopus).

16. **Shrish Bajpai**, Sushant Khare, Rishabh Yadav (2016), "Control Education in India : Present & Future", IFAC-PapersOnLine, 49(1), 813-818. doi : 10.1016/j.ifacol.2016.03.157 (Scopus).

Article(s) In Press:

1. **Shrish Bajpai**, N. R. Kidwai (2023), Fractional Wavelet Filter based Low Memory Coding for Hyperspectral Image Sensors, Multimedia Tools and Applications, 1-26. doi : 10.1007/s11042-023-16528-x (SCIE ; IF = **3.6**).

2. **Shrish Bajpai,** Divya Sharma "Moving Towards 3D-Biometric" will be published in "Digital Image Security: Techniques and Applications on May 2024. (As Book Chapter).

Accepted Article(s) :

1. **Shrish Bajpai** (2024), "3D-Listless Block Cube Set Partitioning Coding for Resource Constraint Hyperspectral Image Sensors" had been accepted in Signal, Image and Video Processing Journal (SCIE ; IF = **2.3**).

2. Harshit Chandra, **Shrish Bajpai**, Digvijay Pandey, Binay Kumar Pandey, "3D Single List Set Partitioning in Hierarchical Trees For Onboard Hyperspectral Image Sensors" had been accepted in Advances in Astronautics Science and (Scopus).

Under review Article(s)

1. Harshit Chandra, **Shrish Bajpai**, Divya Sharma, Amit Kumar Pandey, "Survey on Transform Based Image Compression Algorithms for Hyperspectral Image Sensors" had been submitted in Wireless Personal Communications (SCIE) [April 2023].

2. **Shrish Bajpai**, Divya Sharma, Digvijay Pandey, Binay Kumar Pandey, "3D Shearlet Transform Block Cube Tree Coding for Resource Constraint Hyperspectral Image Sensors" had been submitted in Soft Computing (SCIE) [September 2023/Revision]

3. Harshit Chandra, **Shrish Bajpai**, Digvijay Pandey, Binay Kumar Pandey, "Curvelet Transform Based Hyperspectral Image Compression with Listless Set Partitioned Compression Algorithm for Unmanned Aerial Vehicle Image Sensor" had been submitted to International Journal of Aeronautical & Space Sciences (SCIE) [September 2023]

4. **Shrish Bajpai** "Segmented Fractional Wavelet Filter Based Low Memory Hyperspectral Image Coding Algorithm for Wireless Multimedia Sensor Networks" had been submitted in Multimedia Tools and Applications (SCIE) [September 2023].

5. **Shrish Bajpai**, Divya Sharma, Digvijay Pandey, Binay Kumar Pandey, "Block Based Fractional Wavelet Filter for Compression of Hyperspectral Images Over Wireless Multimedia Sensor Network Platforms" had been submitted in The Visual Computer (SCIE) [October 2023].
6. **Shrish Bajpai**, Divya Sharma, Digvijay Pandey, Binay Kumar Pandey, "Image Quality Assessment Metrics for Hyperspectral Image Compression Algorithms" had been submitted to the Advances in Astronautics Science and Technology (Scopus) [December 2023/Revision]
7. **Shrish Bajpai**, Divya Sharma, Naimur Rahman Kidwai "3D Memory Efficient Listless Set Partitioned Embedded Block Coding Scheme for Hyperspectral Images" had been submitted in Multimedia Tools and Applications (SCIE) [December 2023]
8. **Shrish Bajpai**, Divya Sharma,"3D-Computationally Efficient Zero Memory Set Partitioned Embedded Block Coding Algorithm for Onboard WMSNs" had been submitted in Multimedia Tools and Applications (SCIE) [December 2023/ Revision].

Preparation for Submission

1. **Shrish Bajpai** "A holistic overview of image compression algorithms" in Preparation for submission to Computer Science Review (SCIE).
2. **Shrish Bajpai**, Divya Sharma "A survey on video compression algorithms" in Preparation for submission to Computer Science Review (SCIE).
3. **Shrish Bajpai** "Listless Embedded Block Cube Partitioned Coding for Low recourse sensor nodes" in Preparation for submission to Knowledge and Information Systems (KAIS) (SCIE).
4. **Shrish Bajpai,** Divya Sharma, Naimur Rahman Kidwai "Low Memory Block Tree Coding for Color Images" in Preparation for submission to Multimedia Tools and Applications (SCIE).
5. **Shrish Bajpai,** Divya Sharma, Naimur Rahman Kidwai, "Robust 3D Efficient Zero Memory Set Partitioned Embedded Block Coding Algorithm for Noisy Channels" in Preparation for submission to Signal, Image and Video Processing Journal (SCIE).
6. **Shrish Bajpai**, Divya Sharma, "3D-One List Set Partitioning in Hierarchical Trees for Hyperspectral Aerial Images" in Preparation for submission to Signal, Image and Video Processing Journal (SCIE).

Updated on December 30, 2023