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NAGPUR, MAHARASHTRA- 440025

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# DR. PARAG VINOD PURANIK



## OBJECTIVE:

To pursue a challenging and successful career as a developer in an environment that nurtures and encourages continual learning and growth.

## CURRENT WORKING STATUS:

- Past Working: Worked as an Assistant Professor in Priyadarshini College of Engineering (Priyadarshini Indira Gandhi College of Engineering, Nagpur, Maharashtra from 1<sup>st</sup> July 2012 to 09<sup>th</sup> Feb 2022.
- Worked as a Assistant Professor/ Lecturer in G.H. Raisoni College of Engineering, Nagpur, Maharashtra from 13<sup>th</sup> July 2007 to 30<sup>th</sup> March 2012.
- Worked as a Lecturer in Shri K.R. Pandav (Late Vasantdada) Polytechnic, Nagpur from 13<sup>th</sup> August 2006 to 15<sup>th</sup> March 2011.

**TOTAL EXPERIENCE: 15 Years**

## EDUCATION:

Present Educational Status: **Ph.D. (Engineering and Technology)**

**Ph.D Topic:** Design and Implementation of Typical Voice Based Treatments System for Stress and Alzheimer's Management (2015-2021), Poornima University, Jaipur,

Course	Institution	Board/ Univ.	Year of Passing	Percentage
M.Tech (Electronics)	G.H.Raisoni College of Engg.	Nagpur	2009	76.93
B.E (Electronics & Telecomn)	S.S.G.M.C.E	Amravati	2006	65.3
Diploma In Electronics Engg.	Larsen & Toubro Institute of Technology	MSBTE	2003	76.68

**B.E.**

College: ShriSantGajananMaharajCollege of Engineering, Shegaon

Branch: Electronics and Telecommunication

**PORTFOLIOS HANDLED:**

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1. Departmental R & D Co-ordinator
2. IEEE Co-ordinator
3. Class In-charge.
4. Departmental Time Table In-charge
5. Equipment maintenance Co-incharge
6. Worked under TEQIP-I and TEQIP – II
7. NBA Co-ordinator & In-charge

**AREA OF EXPERTISE:**

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1. Biomedical Engineering (EEG)
2. Microprocessors.
3. Signal Processing.

**Subjects Taught to Undergraduate and Post Graduate:**

1. Digital Signal Processing
2. Signals and Systems
3. Communication Electronics
4. Microprocessors
5. Industrial Electronics
5. Instrumentation
6. Soft Computing
7. Fuzzy Logic & Neural Networks

**PAPER PUBLISHED IN CONFERENCES & JOURNALS**

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1. Parag Puranik, Dr. Sunil Kumar Gupta, Ashish Panat, “Mental Stress Analysis using P-300 Electroencephalogram and its Statistical Significance”, Drugs and Cell Therapies in Haematology (ISSN: 2281-4876) Volume 10 Issue 3 (2021) pp. 1 – 12. (Emerging Source Citation Index (ESCI) Journal)
2. Parag Puranik, Dr. Sunil Kumar Gupta, Ashish Panat, “Application of Principal Component Analysis and Multivariate Signal Processing to Multichannel EEG and Neural Data”, Drugs and Cell Therapies in Haematology (ISSN: 2281-4876) Volume 10 Issue 4 (2021) pp. 13 – 28. (ESCI Indexed)
3. Parag Puranik, Santosh Agrahari, Ashish Panat, “Comparative Analysis of Controlled Healthy and MCI Patients using EEG Statistics”, American Journal of Engineering Research and Reviews (AJOERR) – January 2020, ISSN:2637-3785, 2020, 3:21.(ESCI Indexed Journal)
4. Parag Puranik, R.V. Kshirsagar, Sagar Motdhare, “Elementary time Frequency analysis of EEG Signals” EAI Transactions on Pervasive Health and Technology, 2018-07-23, pp. 1-6

(Scopus)

5. Parag Puranik, Santosh Agrahari, Ashish Panat, "Implementation of EEG signals and P-300 Component to estimate Mild Cognitive Impairment (MCI)", International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8 Issue-2, July 2019, pp.-4381-4391. (ScopusIndexed)  
(<https://www.scopus.com/sourceid/21100889873>)
6. Paper titled "Fuzzy Based Color Image Segmentation using Comprehensive Learning Particle Swarm Optimization" selected in International Multi-Conference of Engineers and Computer Scientists, Hong Kong 16-18 March 2009 and paper was recommended for best paper award
7. Paper titled "Human Perception based Color image segmentation using Comprehensive learning Particle Swarm Optimization" selected and presented in International Conference in emerging trends and technology ICETET-09. 16-18 December 2009.
8. Paper Titled "Soft Computing Based Texture Classification using Discrete Cosine Transform" published in International Journal on Recent Trends in Engineering & Technology Vol. 05, No. 01, Mar 2011.
9. Parag Puranik, Santosh Agrahari, Ashish Panat, "Spectral Analysis of Typical Speech Signals", International Conference on Emerging Trends in Multi-Disciplinary Research- 2020, 23-25 July 2020.
10. Parag Puranik, Santosh Agrahari, Ashish Panat, "Comparative Analysis of Controlled Healthy and MCI Patients using EEG Statistics", International Conference on Recent Trends and Innovation in Engineering, Science & Technology (ICRTIEST - 2019), December 20-21 2019, Jaipur, India.
11. Parag Puranik, Dr. Ashish Panat, "Feature Extraction techniques for Analysis of Typical Voice/Speech Signals", Second IEEE International Conference on Recent Advances and Innovations in Engineering (IEEE-ICRAIE-2016), 23-25 December 2016.
12. Parag Puranik, Dr. Ashish Panat, "Mathematical model for Processing Typical Speech Signals to study its Effect on Human Stress", IEEE International Conference on Electronics Communication Systems ICECS 2016, Coimbatore 25-26 February 2016
13. Paper titled "Texture Classification using Discrete Cosine Transform with Soft Computing Tool : A Design Approach" selected and presented in 3rd International Conference on Electronics Computer Technology - ICECT 2011., Kanniyakumari
14. Paper titled "ANFIS Based Color Image Segmentation for Extraction of Salient Features: A Design Approach" published

in International Journal on Recent Trends in Engineering & Technology IJRTET -11paper id 138, page no. 19-24

15. Paper titled “Artificial Bee Colony (ABC) Algorithm for Vehicle Routing Optimization Problem” published in International Journal of Soft Computing and Engineering (IJSCE) ISSN: 2231-2307, Volume-2, Issue-2, May 2012.

16. Paper titled, “DNA BASED COMPUTING FOR VEHICLE ROUTING PROBLEM WITH FUZZY DEMAND” published in International Journal of Engineering Science & Advanced Technology. ISSN:2250-3676, Vol-2, Issue-3, pp/-760-764.

#### **PATENT PUBLISHED**

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1. The patent titled “Method for Analysis of EEG Signals for Controlled Healthy and MCI patients” is published on 14/08/2020 Application Number: 202011028566.
2. The patent titled “Modified Random Forest Algorithm for the Diagnosis of Alzheimer Disease” is published on 24/08/2021 Application Number: 202141038348.
3. The patent titled “Application of Principle Component analysis and Multivariate Signal Processing to Multichannel EEG” is published on 07/01/2022 with Application number 202111062041

#### **COPYRIGHT PUBLISHED**

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- The Copyright titled “Comparative Analysis of EEG Signals and P-300 wave for Controlled Healthy and Mild Cognitive Impairment patients published with Diary Number 3278/2019/CO-L dated 25.02.2019.

#### **WORKSHOPS TRAININGS AND FDP:**

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1. Training on “EEG Data Analysis” under the guidance of Dr. Bindu Kutty, Professor and Head, Department of Neurophysiology, NIMHANS, Bangalore for period of 15 days from 1<sup>st</sup> to 15<sup>th</sup> May 2018.
2. NPTEL-AICTE FDP on Introduction to Research with score of 77% Aug-Sep 2018.
3. NPTEL-AICTE FDP and NPTEL online Certification on Descriptive Statistics with R software with score of 65% (8 week course) Feb-Apr 2019.
4. NPTEL-AICTE FDP and NPTEL online Certification on Biomedical Signal Processing with score of 54% (8 week course) Jan-Apr 2019.
5. NPTEL-AICTE FDP and NPTEL online Certification on Discrete Time Signal Processing with score of 65% (8 week

course) Aug-Sep2019.

6. Attended one day workshop on PRIMEWIN Software of Image Processing in Regional Remote Satellite Station (ISRO) at Nagpur.
7. Attended Three days workshop on SCILAB at Shri Guru Gobindsinghji Institute of Engineering and Technology, Nanded from 23-25<sup>th</sup> April 2010.
8. Faculty Development program on Teaching Skills at GHRCE, Nagpur

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**INTERESTS AND ACTIVITIES:**

1. Signal Processing, Industrial Automation, Microprocessors

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**LANGUAGES KNOWN:**

English, Hindi and Marathi.

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**INDUSTRIAL TRAINING AND WORK EXPERIENCE**

- 24 weeks Inplant Training in Larsen & Toubro Limited, Awarpur Cement Works, Awarpur in Instrumentation and Control Department From 11<sup>th</sup> June to 23<sup>rd</sup> November 2001.
- 24 weeks Inplant Training in Larsen & Toubro Limited, Powai, Mumbai in Switchgear Contracts Division, Electrical Business Group from 9<sup>th</sup> December to 24<sup>th</sup> May.
- 1 Month Training in Ultra Tech Cement Limited, Awarpur Cement Works in Instrumentation Dept. from 25<sup>th</sup> May to 24<sup>th</sup> June 2004.

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**HOBBIES:**

Teaching, Traveling, Cooking

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**REFERENCES:**

1. Dr. R.V. Kshirsagar- Principal, Gyan Ganga Institute of Technology & Sciences, Jabalpur, Phone No.:+919422594686. Email id: ravi\_kshirsagar@yahoo.com
2. Dr. Sunil Kumar Gupta – Dean R&D, Poornima University, Jaipur, Phone No.: 9460595513. Email id: dean.research@poornima.edu.in
3. Dr. Ashish Panat Director, Innovation, Incubation and Linkages, SNDT Women's University, Mumbai, phone No. - +918788637989 email id: ashishpanat@gmail.com

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**PROFESSIONAL MEMBERSHIPS:**

- IEEE Member
- UAEEE Member
- AICEE Member
- Executive Member of IEEE for the year 2005-06.

- Student Member of IEEE Students Branch
- Member of ISTE Students Chapter.

**COMPUTER KNOWLEDGE:**

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- MS-Office
- Operating Systems: Windows 98, Windows 2000, Windows XP

**PROJECTS:**

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**M.Tech:**

- Fuzzy Based Color Image Segmentation using Comprehensive Learning Particle Swarm Optimization

**Engineering:**

- Control of Electrical and Electronic Devices using SMS.

**Diploma:**

- Automatic Railway Signal Controlling and Train Control System.

**PERSONAL INFORMATION:**

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Marital status: Married

Nationality: Indian

Date of Birth: 16 June 1983.

Age: 37

Parents: Mr. Vinod Puranik [General Manager, Chattisgarh Cement Carriers, Raipur], Mrs. Pallavi Puranik [Housewife]

Spouse: Mrs. Rachana Puranik [Assistant in LIC of India]

**DECLARATION**

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I hereby declare that the information furnished above is true to the best of my knowledge and belief.

Date:

Place:

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Dr. PARAG PURANIK