

Curriculum Vitae

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Educational Qualification:

Qualification	Collage/ University	Year of passing	%/CGPA
Ph.D. (Electronics & Communication Engg.)	V.N.I.T., Nagpur	Jan-2018	9.00
M.E. (Digital Electronics)	S.G.B.A.U. Amravati	2013	7.82
B.E. (Electronics & Telecomm. Engg.)	S.G.B.A.U. Amravati	2009	66.07

Technical Skills:

1. *Programming Language*: Embedded C, Python, MATLAB.
2. *Designing Software*: Eagle PCB prototyping, Atmel Studios, Proteus Prototyping, AutoCAD Designing.
3. *System Designing*: Computer Vision Systems, Embedded System Design and development.

Conference and Publications:

1. MayurRajaramParate, V.R. Satpute, K. M. Bhurchandi, "Global-Patch-Hybrid Template-Based Arbitrary Object Tracking with Integral Channel Features," *Applied Intelligence, Springer*. Doi: 10.1007/s10489-017-0974-4. (**SCI indexed, Springer, IF = 1.215**).
2. Mayur Rajaram Parate and Kishor M. Bhurchandi, "Structurally Enhanced Correlation Tracking," *KSII Transactions on Internet and Information Systems*, vol. 11, no. 10, pp. 4929-4947, 2017. DOI: 10.3837/tiis.2017.10.013 (**SCIE indexed, IF = 0.365**)
3. Vipin Milind Kamble, Mayur Rajaram Parate, K. M. Bhurchandi, "No Reference Noise Estimation In Digital Images Using Random Conditional Selection And Sampling Theory," *The Visual Computer International Journal of Computer Graphics, Springer*. Doi: 10.1007/s00371-017-1437-y. (**SCIE indexed, IF = 1.468**)
4. MayurRajaramParate, Saugata Sinha, and Kishor M. Bhurchandi. "Integral Channel Feature based arbitrary object tracking." *In Twenty Second IEEE National Conference on Communication (NCC-2016), IIT Guwahati, India, 2016*, pp. 1-6., 2016.

PhD Research Work:

Title: Visual Arbitrary Object Tracking Using Hybridization of Appearance Models

Tracking is an important phenomenon in computer vision applications like; traffic monitoring, security and surveillance, human-computer interaction, tracking in sport, etc. The work focused on developing robust object appearance models to handle illumination variations, occlusions, in-plane-rotations, etc. of the object and achieve higher tracking accuracy and robustness. The proposed algorithms (mentioned under list of publications) achieved near real time results.

Research Work during M.E.:

Title: Fault Recognition in Internal Combustion Engine using Audio Signals

Detecting incipient faults in an Internal Combustion Engine (IC Engines) is a tricky task as it needs expertise, experience and consumes time. The goal behind the work is to develop decision assistance system to recognize incipient faults in 4-stroke IC engine using only audio signals from the engine. A classifier is trained based on the features extracted from faulty and non-faulty audio signals. Very low cost carbon-microphone is used to collect audio signals from the engine. IC engine faults like; spark-plug fault, piston fault, air-filter fault are recognized using the trained system.

Project Work during B.E.:

Title: A System for Tilt Measurement using Cyclone-II FPGA

The work was aimed towards development of accurate tilt measurement system. The control and ALU part of the system was designed using the Cyclone-II FPGA academic board. The developed system offers accurate tilt measurement in building and bridge construction fields.

Freelancing Projects :

1. *Electronic Telematic Unit (ETU)*

ETU was designed to transmit vehicle's sensor data and GPS position to the server. Version V1.0 of ETU is Time Based Management (TBM), which notifies user about the timely maintenance of the vehicle. (Designing is in process for Mahindra & Mahindra, Nagpur.)

2. *Human aware lift control system*

It was designed for the commercial food lifts. The sole purpose of food lifts is to carry food and not human. The system detects presence of human user inside the lift and restricts processing of call-command issued. (Installed at Mahindra & Mahindra, Nagpur.)

3. *Biometric Authorization System*

The system offers advance entry-level security for offices. It allows only authorized persons to unlock the entrance. (Installed at Innovation gallery Mahindra & Mahindra, Nagpur)

4. *RFID based Interlocking system*

It is an authorization system to use technical instruments in industry workshop. This does not allow unauthorized person to start and use the technical instruments in industry workshop. (Installed at Mahindra & Mahindra, Nagpur)

5. *Feedback System*

The feedback systems for Canteen and Hospital are developed. It provides subjective analysis of the inputs from the user. (Installed at Mahindra & Mahindra, Nagpur)

STTPs and Workshops:

1. One week short term training programme on 'VLSI and Embedded System' at JDIET, Yavatmal.
2. One week short term training programme on 'Emerging trends in soft computing' at JDIET, Yavatmal.

Experience:

Position	Entity	Nature of work	Duration
Assistant Professor	JDIET, Yavatmal	Teaching	1 Yr.
Research Scholar	VNIT, Nagpur	Research	3Yrs. 6 Months

I hereby declare that the information given by me is true to best of my knowledge.

(Mayur Rajaram Parate)