A/9 - Ajanta, Abhinav-Milind
CHS, Shiv Srushty, Kurla
(EAST), Mumbai – 400 024.

E-mail: harshawardhan.ahire@gmail.com
Hpahire_p17@el.vjti.ac.in
harshwardhan@somaiya.edu

Mobile: +91-983325 57 44 & +91-7977868342

Harshawardhan P. Ahire

Objective	I am a dedicated and innovative researcher with extensive experience in LDPC decoding and neural networks. I seek to leverage my expertise in computational complexity, performance analysis, and algorithm optimization to contribute to cutting-edge advancements in communication systems. Adept at utilising MATLAB for simulation and analysis, with a proven track record of academic writing and effective response to peer reviews. Committed to driving impactful research and practical applications in error correction and neural network integration.

Experience	Aug 2008 – till date K.J. Somaiya Inst. Of Engineering & IT Sion, Mumbai

Asst. Prof. in Electronics & Telecommunication Department

- ☐ **The timetable committee is in charge of** the current semester.
- ☐ **Examination in charge** of the departmental exams.
- ☐ **Accreditation Criteria VI coordinator**.

Aug 2008 – July 2010   K.J. Somaiya Inst. Of Engineering & IT   Sion, Mumbai

Cultural in charge

- ☐ Working for **student welfare** activities in college.
- ☐ Formed a **Surge club** for students' participation in college festivals.
- ☐ Working as a **student council** in charge.

Aug 2005 – July 2008   Rizvi College of Engineering   Bandra, Mumbai

Lecturer in Electronics Department

- ☐ **Timetable committee in charge**.
- ☐ **In charge** of **table tennis and ring football**
- ☐ **Helping hand with lab setup** and **university documentation**.

Jan 2006 – July 2008   Rizvi College of Engineering   Bandra, Mumbai

Sports in charge

- ☐ Successfully arranged annual sports for students in college single-handedly
- ☐ Formed football team and cricket team of college to represent in inter-college sports

Jan 2006 – Jan 2007   Rizvi College of Engineering   Bandra, Mumbai

Training and Placement Officer

- ☐ Successfully arranged more than four campus interviews within four months & placed more than 80 students.
- ☐ 60 % of students from the Civil Department are placed.
- ☐ Planning for 80-90% placement for next year.

June 2003 – July 2005   Babasaheb Gawde Inst. Of Tech.   Mumbai Central

Lecturer in Digital Electronics Department

- ☐ Worked in **accreditation committee** to prepare necessary documents.
- ☐ Worked on the exhibition hall committee for the Think Quest **project exhibition.**
- ☐ Member of **academic monitoring committee.**

June 2003 – July 2005   Babasaheb Gawde Inst. Of Tech.   Mumbai Central

Industrial Liaison Officer

- ☐ Successfully organized **industrial tours** for students in their third year and second year.
- ☐ Arranged **campus interviews for Wipro**
- ☐ Attended a seminar by **Microsoft as an industrial liaison officer**.

May 2002 – May 2003   Nageshwar Infotech Pvt. Ltd.   Mumbai

Quality control & Hardware Engineer

- ☐ **Testing of new peripherals** coming in the shipment.
- ☐ **Maintaining the quality** of peripherals sold.
- ☐ Solving **customer complaints** and **queries**.
- ☐ **Assembling, Installing and Troubleshooting computer systems**.

June 1995 – May 1997   Atlantic Computers   Mumbai

Quality control & Hardware Engineer

- ☐ **Testing of new peripherals** purchased from the market.
- ☐ Solving **customer complaints** and **queries**.
- ☐ **Assembling, Installing and Troubleshooting computer systems.**

Education

2017 – till date   Veermata Jijabai Technological Institute   Matunga

- ☐ **Ph. D (Technology) in Electronics Engineering.**
- ☐ Possessing a satisfactory educational record.
- ☐ Working on Error Correcting Codes.
- ☐ **Thesis Submitted Awaiting for Ph.D. defence.**

2010 - 2014   Fr. Concicao Rodrigus COE   Bandra, Mumbai

- ☐ **Master of Engineering in Electronics Engineering.**
- ☐ Possessing a satisfactory educational record.
- ☐ Project in **Brain Haemorrhage Detection using ANN.**
- ☐ Secured **FIRST CLASS (61.00%).**

1998 – 2002   MGM's College of Engineering   Nanded

- ☐ **Bachelor of Engineering in Electronics and Telecommunication.**
- ☐ Possessing a satisfactory educational record.
- ☐ Project in **EIGHT LINE TELEPHONE EXCHANGE.**
- ☐ Secured **FIRST CLASS (64.00%).**

1997 – 1998   Bombay Institute of Technology   Worli, Mumbai

- ☐ **Diploma in Digital Electronics.**
- ☐ Possessing a satisfactory educational record.
- ☐ Project in **PRINTER SHARING UNIT.**
- ☐ Secured **FIRST CLASS (60.00%).**

**1996–1997	Government Polytechnic Mumbai	Bandra, Mumbai**

☐ **Advanced Diploma in Computer Software & System Analysis and Applications (ADCSSAA)**

☐ Possessing a satisfactory educational record.

☐ Project in **SHARES ACCOUNTING**

**1992–1995	Vivekananda Edu. Society's Polytechnic	Mumbai**

☐ **Diploma in COMPUTER TECHNOLOGY**.

☐ Possessing a satisfactory educational record.

☐ Project in **CARD OPERATED SYSTEM.**

☐ Secured **SECOND CLASS (59.08%).**

Projects

BRAIN HAEMORRHAGE DETECTION USING ANN

☐ Detection of ICH & SDH Haemorrhages

☐ Used Various Neural Networks for Detection.

☐ Used various numbers of Hidden Layer Neurons

☐ Its Matlab-Based Simulation for detection.

ROLL:

☐ Software Development.

☐ Algorithm Analysis and implementation.

☐ Testing & Troubleshooting.

EIGHT LINE TELEPHONE EXCHANGE

☐ This is a private exchange.

☐ Permits to connect EIGHT Telephone Lines, I.e. Eight Telephone Sets.

☐ It is a complete hardware-based project which provides semi-automatic operation.

ROLL:

☐ Hardware Development and Implementation.

☐ Logic Development.

☐ Testing & Troubleshooting.

PRINTER SHARING UNIT

☐ This allows three computer systems to share one printer.

☐ The sharing is done based on time sharing.

☐ It is a complete hardware-based project that reduces system configuration.

ROLL:

☐ Logic Development.

☐ Hardware Development and Implementation.

☐ Testing & Troubleshooting.

SHARE ACCOUNTING AND TRANSFER

☐ It is a software developed using FoxPro to maintain daily transactions as well as transfers of shares.

☐ It performs transfer of shares, sale & purchase of shares, and issuing certificates.

☐ It is a complete software-based project that shares every operation with report and database maintenance facilities.

ROLL:

- [ ] Logic Development and Implementation.
- [ ] Debugging & error correction.
- [ ] Surveying the market to gain knowledge for the implementation.

CARD OPERATED SYSTEM

- [ ] This Security system is enabled only if the appropriate card is used.
- [ ] If the card is correct, then the user gets access. If it is wrong, access is denied, and the alarm starts ringing.
- [ ] It is a combination of hardware & software which provides semi-automatic operation.

ROLL:

- [ ] Programming on MICROPROCESSOR KIT using Assembly Level Language
- [ ] Hardware Development and Implementation.
- [ ] Debugging of program, Testing & Troubleshooting.

Publication Details

- [ ] **Ahire Harshawardhan, and Doshi Apoorva, Quad Rotor Spy Robot & Metrological Surveying Using Wireless Technology, Innovative Trends in Computer & Communication, February 2011.**
- [ ] **Ahire Harshawardhan, and Pawar Jayshree, Face Recognition Using Eigen Faces, Emerging Trends & Applications in Machine Learning, March 2013.**
- [ ] **Ahire, Harshawardhan, and Save Jagruti, Brain Haemorrhage Detection using Artificial Neural Network", International Conference on Advances in Communication and Computing Technologies" August 2013.**
- [ ] **Ahire Harshawardhan, Pujari Gauri, Sawant Asmita, Raste Parth, Patil Abhishek, Obstacle Detection for Visually Impaired, International Journal of Engineering and Technical Research (IJETR), December 2014.**
- [ ] **Ahire Harshawardhan and Rathod Devichand, Decoding of Low-Density Parity-Check Code Using Artificial Neural Network. Available at SSRN: https://ssrn.com/abstract=4196994 or http://dx.doi.org/10.2139/ssrn.4196994**
- [ ] **Ahire Harshawardhan, Mehta Dhaval, Kadtarkar Prathamesh, and Deshmukh Mayur, Comparison of Forward Error Correcting Methods LDPC and BCH, International Research Journal of Modernization in Engineering Technology and Science, May 2021**
- [ ] **Ahire Harshawardhan, and Wagh Sushama, Non-iterative MSNN decoder for image transmission over AWGN channel using LDPC," in 2024 26th International Conference on Digital Signal Processing and its Applications (DSPA), March 2024.**
- [ ] **Ahire Harshawardhan, Wagh Sushama, "Neural Network-Based Iterative Process with Soft Decoding Algorithms for Regular and Irregular LDPCC - A Low-Density-Parity-Check Codes Decoder Schema", Journal of Electrical System, Vol. 20, Issue 11, December, 2024.**
- [ ] **Ahire Harshawardhan, Wagh Sushama, "Parallel Non-Iterative Cascaded Feedforward Neural Network Decoder for Low-Density Parity-Check Codes", IAENG International Journal of Computer Science, Acceptance received on 6 February 2025.**

Extracurricular activities

Member of VISIOTECH – 2000 (National Level Paper Presentation) organizing committee.
- [ ] Organized the **project exhibition** in **VISIOTECH – 2000.**
- [ ] Conducted **System Design Contest** in **VISIOTECH – 2000.**

Hobbies

- [ ] **Swimming**
- [ ] **playing and watching indoor and outdoor games**
- [ ] **reading books**

Interests & Activities	☐ **Travelling, long drives** ☐ **Computer Programming, Games.** ☐ **Learn New Languages**
Personal Ethics	☐ **Good grasping ability.** ☐ **Excellent Interpersonal Skills** ☐ **I like to work with groups as well as solo.** ☐ **Helping & understanding nature.** ☐ **Go-getter attitude.** ☐ **Always a winner.** ☐ **Good leadership qualities and representation.**
Subjects taught	☐ Digital Logic Design ☐ Control System ☐ Image Processing and Computer Vision ☐ Computer Organization & Architecture. ☐ Elements of Microprocessor ☐ Radar Engineering. ☐ Microwave Devices & Components ☐ Data Communication & Networking. ☐ Optical Fiber Communication ☐ Satellite Communications ☐ Neural Network and Deep learning ☐ Fundamentals of Data Science
Date Of Birth	**24th January 1977.**
References	☐ **Dr S. R. Wagh (Head of the Department of Electrical Engineering) Asst. Prof. in the Department of Electrical Engineering, V. J. T. I. Matunga, Mumbai – 400 019.** ☐ **E-mail: srwagh@el.vjti.ac.in** ☐ **Dr Priya Hankare, Asst. Prof. in the Department of Electronics and Telecommunication Engineering, K. J. Somaiya Institute of Technology, Sion, Mumbai 400 022.** ☐ **E-mail: Priya.h@somaiya.edu** ☐ **Dr Jayashree Khanapuri (Head of Electronics and Telecommunication Engineering), Professor in the Department of Electronics and Telecommunication Engineering, K. J. Somaiya Institute of Technology, Sion, Mumbai 400 022.** ☐ **E-mail: jayashreek@somaiya.edu**