

Dr. Shyamal Virnodkar

shyamal@somaiya.edu

Mumbai, India 400042

9869406401

Professional Summary

Hands-on experience at the graduation and post-graduation level education facility. Familiarity working at a College and University department. Outstanding ability to handle syllabus at the undergraduate and graduate curriculum. Remarkable ability to teach, inspire and develop young people. Leading a software consultancy cell in current institute. Passion in research in the area of computer engineering.

Skills

Class instruction

Classroom presentations

Software development

Student records management

Continuing education

Research

Work History

Academic Experience

August 2009 to Current

Associate Professor

K.J. Somaiya Institute of Engineering and Information Technology, Sion Mumbai, India

Jan 2001 to July 2009

Lecturer

M. H. Saboo Siddik College of Engineering, Byculla, Mumbai, India

Subjects Taught:

Python Programming, Object Oriented Programming, Computer Programming I, Computer Programming II, Computer Networks, System S/W and Operating Systems, Image Processing, Computer organization and Architecture, Theory of Computer Science, Digital Signal and Image Processing, Computer Vision, Data Structures, Artificial Intelligence, System Security, Database Management System.

Award:

Awarded as "Outstanding Teaching Performer" for the year 2013-14 by 'Somaiya Trust', Mumbai, India.

Researcher

Patents:

Granted Patents:

1. A System for water stress identification in crops and method thereof, Application No.: 2021103519
2. Non-destructive method for generating description of mango and device thereof, Application No.: 2021103379

Published Patents:

1. Published an Indian patent on “A System for water stress identification in crops and method thereof” having application number as ‘202121016466’
2. Published an Indian patent on “Handy device and process for non-destructive identification of Devgad alphonso mango and its ripening percentage” having application number as ‘202121012895’

Publications:

Seven Journals publications in the field Computer / Information Technology.

Eleven Publications at International and National level conferences.

Peer reviewed Journal Publications:

1. DenseResUNet: An architecture for sugarcane crop water stress assessment from satellite imagery, Traitment du Signal International SCIE, Scopus indexed journal (IF- 2.243, HI-11)
2. A paper on “CaneSat dataset to leverage convolutional neural networks for sugarcane classification from Sentinel-2” in ESCI, SCOPUS indexed Elsevier’s open access international journal “Journal of King Saud University – Computer and Information Sciences”. H-index of 32 (Scimago) with site score 9.0, DOI: <https://doi.org/10.1016/j.jksuci.2020.09.005>
3. A review paper titled “Remote Sensing and Machine Learning for Crop Water Stress Determination in Various Crops: A Critical Review” in a SCIE, SCOPUS indexed Springer’s international journal “Precision Agriculture”. The impact factor of this journal is 3.356(2018), 3.520(2018) five-year impact factor and H-index of 58 (Scimago). This journal accepts only Q1 papers. DOI: 10.1007/s11119-020-09711-9

International Publications:

1. Paper titled “GIS for Agriculture Land” in International Research Journal of Engineering and Technology “(IRJET) Volume 2 Issue 07 on Oct. 2015 , ISBN No.- e-ISSN: 2395 -0056 , p-ISSN: 2395-0072, Pg. No-1-4.
2. Paper titled “Review on GSM Applications” International Journal of Advanced Learning and Research Development ,Volume 02 Issue 09, sept. 2015, ISSN (Online) : 2348-4470.
3. Paper titled “A Review of GPRS Applications” in International Journal on Recent and Innovative Trends in Computing and Communication (IJRITCC) September 15 Volume 3 Issue 9, Sept. 2015 ,ISSN-2321-8169, Pg. No-5698-5701.

4. Paper titled "A parser: Simple English Language Detector and Corrector " in International Journal of Engineering Research & Technology, Volume 3 Issue 11 on Nov. 2014 ISSN -,Pg.No-1171-1172

International and National Conferences:

1. 'Remote Sensing Image Fusion using Machine Learning and Deep Learning: A Systematic Review' in 7th International Conference on Computing in Engineering and Technology (ICCET)-2022 on 12-13 Feb 2022.
2. A research paper on "Performance Evaluation of RF and SVM for Sugarcane Classification using Sentinel-2 Time Series NDVI" in a Springer's SOPUS indexed '4th International Conference on Advanced Computing and Intelligent Engineering (ICACIE 2019)' held during 21-23 December 2019at Bhubaneswar, India, DOI: https://doi.org/10.1007/978-981-15-6353-9_15
3. A research paper on "A Technique to Classify Sugarcane Crop from Sentinel-2 imagery using U-Net Architecture" in a Springer's SOPUS indexed '4th International Conference on Advanced Computing and Intelligent Engineering (ICACIE 2019)' held during 21-23 December 2019at Bhubaneswar, India, DOI: https://doi.org/10.1007/978-981-15-6353-9_29
4. A review paper on "Application of Machine Learning on Remote Sensing Data for Sugarcane Crop Classification: A Review" in a Springer's SOPUS indexed '4th International Conference on ICT for Sustainable Development' ICT4SD, held during 5-6 July 2019, Goa, India. DOI: https://doi.org/10.1007/978-981-15-0630-7_55
5. Paper titled "Statistical Method for Hiding Detection In LSB of Digital Images: An Overview" in t.he "World Academy of Science, Engineering and Technology , the WASET conference", Singapore held on 30-31 August, 01 September 2008.
6. Paper titled " Secured Steganography " at Sonata's international conference on "Computer , Communication , Controls" held at R.V. College of Engg., Banglore on 23-25 Nov. 2006.
7. Paper titled " Trends and Future Forecast of IT 2020" in the international conference on "Trendz in information Sciences and Computing" held at Sathyabhama University, Chennai on 12-14 Dec, 2007.
8. Paper titled " Steganography – A Boon or Curse" in national conference on "Information Technology : Present Practices and Challenges" held at Delhi, on August 31, September 01 2007.
9. Paper titled " Expanding E-Commerce : A Data Mining Approach" in national conference on "Emerging Trends in Information Technology", held at Baramati on 29-30 Sep, 2007.

10. Paper titled "Secured Steganography " in national conference on "Emerging Trends in Information Technology", held at Baramati on 29-30 Sep, 2007.
11. Paper titled "Multiresolution Wavelet Decomposition for Content Based Retrival" in national conference at Mumbai on 4-6 Jan, 2007.
12. Paper titled "Raw Images Secured Steganography" in national conference held at VIT , Mumbai, on 29-30 Sep, 2008.

Short Term Training Program :

- 1 Attended SDP on "IoT : Applications & Development" from 02/05/2016 to 07/05/2016,KJSIEIT,Sion,Mumbai.
2. Attended STTP on "Big Data Analytics, Web App Designing & Android App Designing", from 19/12/2015 to 25/12/2015.
- 3.Attended STTP on "Data Warehousing and Mining" at KJSIEIT from 10/01/11 to 14/01/11.
- 4.Attended STTP on "Cloud Computing" at KJSIEIT from 10/11/14 to 14/11/14.
- 5.Attended STC on "Quality Culture – TQM A Proactive Approach" from 27/05/2002 to 07/6/2002 at MH.Saboo Siddik College of Engg. Byculla,Mumbai.
- 6.Attended two week SDP on "Developing Pedagogical Skills" from 28/06/2004 to 09/07/2004 at BATU,Lonere,Raigad.

Consultant

April 2013 to March 2018

K.J. Somaiya Institute of Engineering and Information Technology, Sion Mumbai, India.

Consultancy Experience:

- 1.Developed Admission software for the college. This software is being used by our college for admission process from the academic year 2013-2014 (2013-2018)
2. Developed an Android app 'Kisan Khazana' for Godavari Biorefineries Ltd., Sameerwadi, Karnataka, India (2016-2018)
3. Developed Examination Software for K. J. Somaiya Science and Commerce college, Vidyavihar, Mumbai. (2014-2018), Continuing with it now
4. Played major role in developing departmental software.
5. Developed weekly report software for computer engineering department of KJSIEIT college. (2014-2016)

Education

Ph.D. in Computer Engineering

Collage of Engineering , SPPU, Pune Maharsahtra

3rd July 2018 – 21st March 2022

PhD Topic:

“Remote sensing based crop water stress assessment using machine learning”

Professional Softwares Used:

.net , MATLAB, Android Studio, QGIS

Databases:

MSSQL Server, Oracle

Master of Engineering Computer Engineering

2008 University of Mumbai

M.E. Topic:

Experimental and theoretical investigations for “Raw Images Secured Steganography Using Efficient Compression Techniques ”.

Bachelor of Engineering Computer Engineering

2000 University of Mumbai

Engineering Diploma Computer Engineering

1997 Govt. Polytechnic, Bandra Mumbai

Secondary School Certificate

1994 Mahatma Jyotiba Phule Kanyashala-01, Dadar Mumbai