302, Hari Govind Dham CHS, Plot No. 17, Sector 15, Ghansoli, Navi Mumbai Pin – 400701 <u>sksurve18@yahoo.com</u> Mobile: 9167635546

# SUNIL SURVE

#### EXPERIENCE Prof

## Professor and IQAC Coordinator

#### Fr. Conceicao Rodrigues College of Engineering

#### From June 2019 – Till date

- NBA Coordinator Accreditation extended for two years
- IQAC Coordinator Institution accredited with B++ grade
- Received MODROB grant for Machine Learning Lab

#### **Professor and Head of Computer Engineering Department**

#### Fr. Conceicao Rodrigues College of Engineering

From April 2013 – May 2019

- Association with Thapar University for Mini MOOC course creation, 2016
- Association with Bennett University (leadingindia.ai) for "AI and Deep Learning Skills", 2018
- Association with Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli, Dist.
  Ratnagiri. (Agricultural University) for development of project (Crop disease), 2019
- Development of center for excellence for Computer Network Lab in association with D-Link
- Implementation of Project Based Learning at department level
- NBA accreditation for three years

Other responsibilities:

- Infrastructure Head: Responsible to make changes in infrastructure as per AICTE norms
- Chairman Time Table Committee
- Organizing Biennial International Conference (International Conference on Advances in Computing Communication and Control) as General Chair
- NBA Coordinator Successfully accredited for all eligible courses

## Associate Professor and I/C Head of Computer Engineering Department

## Fr. Conceicao Rodrigues College of Engineering

From November 2009 – March 2013

- Development of "IBM Excellence Center" in association with IBM
- Development of Software Engineering Lab, Artificial Intelligence Lab, etc.

Other Responsibilities:

- Chairman Time Table Committee
- Conference Co-Chair/Program Chair for Biennial International Conference (International Conference on Advances in Computing Communication and Control)
- Single Point of Contact (SPoC) for Infosys

## Assistant Professor/Lecturer

## Fr. Conceicao Rodrigues College of Engineering

From January 2000 – October 2009

- Associated for development of Computer Engineering Labs
- Coordinator Time Table Committee
- Organizing various events like FDP, STTP, etc.
- Attended Sabbatical at Infosys, Pune (Designed Conference Room Management System)
- Participated in various workshops

#### Lab Assistant/Technician

## Fr. Conceicao Rodrigues College of Engineering

From December 1986 – December 1999

• Participation in development of Electronics Engineering Labs

## EDUCATION 2012

PH.D.

## VJTI, MUMBAI

Ph.D. (Electronics Engineering)

Thesis Title: Coordination, Control and Synchronization of Multi-Agents System

#### 1999

## VJTI, MUMBAI

M.E. (Electronics Engineering) with First Class

Thesis Title: Development of Five DOF Robotic Arm

**1992** 

**Institution of Engineers** 

A.M.I.E. (Electronics and Communication Engineering) (does not give class)

1987

#### Ramniranjan Jhunjhunwala College of Arts and Science

B.Sc. (Physics) (Second Class)

#### RESEARCH Research Publications:

- Borgalli, R. A., & Surve, S. (2022). Facial Emotion Recognition Through Detection of Facial Action Units and Their Intensity. Scientific Visualization, 14(1), DOI: 10.26583/sv.14.1.06 <u>http://sv-journal.org/2022-1/06/</u>
- Borgalli, R. A., & Surve, S. (2022). Compound Facial Expression Recognition and Pain Intensity Measurement Using Optimized Deep Neuro Fuzzy Network. International Journal of Swarm Intelligence Research (IJSIR), 13(1), 1-27. DOI: 10.4018/IJSIR.304721 <u>https://www.igi-global.com/article/compound-facial-expression-recognition-andpain-intensity-measurement-using-optimized-deep-neuro-fuzzy-network/304721</u>
- Rohan Appasaheb Borgalli & Sunil Surve (2023) Review on learning framework for facial expression recognition, The Imaging Science Journal, DOI: 10.1080/13682199.2023.2172526
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- Rohan Appasaheb Borgalli, Sunil Surve, "Deep Convolution Neural Networks for Cross-Dataset Facial Expression Recognition System", International Journal of Engineering and Manufacturing (IJEM), Vol.12, No.6, pp. 40-51, 2022. DOI:10.5815/ijem.2022.06.05 <u>https://mecs-press.net/ijem/ijem-v12-n6/IJEM-V12-N6-5.pdf</u>
- Appasaheb Borgalli Rohan\*, Surve Sunil, Learning framework for compound facial emotion recognition, Recent Advances in Electrical & Electronic Engineering 2023; 16(). <u>https://dx.doi.org/10.2174/2352096516666230403091253</u>
- Borgalli, R. A., & Surve, S. (2022, March). Deep Learning Framework for Facial Emotion Recognition using CNN Architectures. In 2022 International Conference on Electronics and Renewable Systems (ICEARS) (pp. 1777-1784). IEEE, DVD Part N umber: CFP22AV8-DVD; ISBN: 978-1-6654-8424-4. <u>https://ieeexplore.ieee.org/document/9751735</u>
- Borgalli, M. R. A., & Surve, S. (2022, March). Deep learning for facial emotion recognition using custom CNN architecture. In Journal of Physics: Conference Series (Vol. 2236, No. 1, p. 012004). IOP Publishing. 2nd International Conference on Computational Intelligence & IoT (ICCIIoT) 2021 organized by Department of Electronics and Communication Engineering North Eastern Regional Institute of Science and Technology (NERIST) Nirjuli, Itanagar, Arunachal Pradesh, India on 23-24

Feb., 2022, Conference Proceedings published in SCOPUS indexed IOP's Journal of Physics.

- Borgalli, R.A., Surve, S. (2023). Deep Learning Framework for Compound Facial Emotion Recognition. In: Shukla, A., Murthy, B.K., Hasteer, N., Van Belle, JP. (eds) Computational Intelligence. Lecture Notes in Electrical Engineering, vol 968. Springer, Singapore. <u>https://doi.org/10.1007/978-981-19-7346-8\_65</u>
- Borgalli, R. A. & Surve, S. (2023). Learning Framework for Real-World Facial Emotion Recognition. In S. Kautish, N. Chaubey, S. Goyal, & P. Whig (Eds.), AI-Enabled Social Robotics in Human Care Services (pp. 59-90). IGI Global. <u>https://doi.org/10.4018/978-1-6684-8171-4.ch003</u> (Book Chapter)
- Preeti Jain and Sunil K Surve; "A Review of Shared Resource Contention in Multicores and its Mitigating Techniques." In International Journal of High Performance Systems Architecture 2020 Vol. 9 No.1 DOI: <u>10.1504/IJHPSA.2020.107169</u>
- Preeti Jain, Dinesh Kumar Gautam, Sunil K Surve; "Modeling Shared Re-Source Competition For Multicores Using Adapted Tilman Model". In International Journal of High Performance Computing and Networking 2019 VOL.15 NO.3/4. DOI: <u>10.1504/IJHPCN.2019.106112</u>
- Christo Aluckal; B.K. Mohan; Yash Turkar; Y ogesh Agarwadkar; Yashom Dighe; Sunil Surve; Sumedh Deshpande; Brijmohan Daga. "Dynamic real-time indoor environment mapping for Unmanned Autonomous Vehicle navigation" In the proceedings of IEEE2019 International Conference on Advances in Computing, Communication and Control. (ICAC3'17). DOI: 10.1109/ICAC347590.2019.9036813
- Preeti Jain and Sunil K Surve; "Coordination and Synchronization in Multi-agent System Based on Tilman Model of Resource Sharing." In the proceedings of IEEE2019 International Conference on Advances in Computing, Communication and Control. (ICAC3'17). DOI: <u>10.1109/ICAC347590.2019.9036776</u>
- Preeti Jain and Sunil K Surve; "Evaluating Resource Centric Behavior of Workloads and Performance Analysis in CMPs due to Shared Resources." In International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249–8958, Volume-8, Issue-6, August 2019
- P.N.Jain, S.K. Surve; "Modeling Resource Constrained Solo Applications Using Logistic Growth Model" In the proceedings of IEEE2017 International Conference on Advances in Computing, Communication and Control. (ICAC3'17).
   DOI: 10.1109/ICAC3.2017.8318751
- Jain P.N, Gautam D.K, Surve S.K.; "<u>Resource Based Modelling of Applications on Multi-Cores Using Adapted Tilman Model</u>," In the proceedings of 4<sup>th</sup> International Conference on Computing in Engineering, (ICCET2019) Springer, ASIC series. (2019) Pages 397-409 ISBN 978-981-329-515-5

- Jain P.N, Surve S K.; "Resource Centric Characterization and Classification of Applications Using K Means for Multicores." In the proceedings IEEE 33<sup>rd</sup> International Conference on Information and Technology (ICOIN). (2019). (Received Best Student Paper Award) DOI: <u>10.1109/ICOIN.2019.8717981</u>
- Mangalwedekar, Sindhuja; Surve, Sunil K., Mangalvedekar H.A.," Error Propagation in Linear and Non-Linear Systems for False Data Injection Attack" in the Proceedings of 2015 International Conference on Advances in Computing, Communications and Informatics (ICACCI) DOI: <u>10.1109/ICACCI.2015.7275686</u>
- Sindhuja Mangalwedekar, Surve, Sunil K., Mangalvedekar H.A., "False Data Injection Attacks and Detection Scenarios in the Power System" in the proceedings of 2015 Annual IEEE India Conference (INDICON) DOI: <u>10.1109/INDICON.2015.7443817</u>
- Jeenal Shah, Dr Sunil Surve, Dr Varsha Turkar, "<u>Pancreatic Tumour Detection Using</u> <u>Image Processing</u>" in the International Conference on Advances in Computing, Communication and Control 2015 (ICAC3) ISBN No. 9781510807839
- Mangalwedekar, Sindhuja; Surve, Sunil K., "Measurement Sets in Power System State Estimator in Presence of False Data Injection Attack" in the Proceedings of 2015 IEEE International Advance Computing Conference (IACC), pp.855,860, 12-13 June 2015 DOI: 10.1109/IADCC.2015.7154827
- Ritesh Meshram, Dr. Sunil Surve. "<u>Formation Control For Wheeled Mobile Robots</u>", in International Journal Of Scientific & Technology Research Volume 3, Issue 5, May 2014, ISSN 2277-8616
- Radhika Nayak, Sunil Surve and Sapna Prabu, "Reduction in computational complexity-A Face Recognition Case study", International Journal of Advanced Research in Computer and Communication Engineering, Vol. 3, Issue 2, February 2014.
- Nikita Agwankar, Sunil Surve and Sapna Prabu, "Security for Portable Data Storage Media", International Journal of Advanced Research in Computer and Communication Engineering, Vol. 3, Issue 1, January 2014.
- Anuja Borkar and Sunil Surve, "Comparison of a Developed Dual Axis Solar Tracking System Based On Maximum Power Point Tracking (MPPT) and Astronomical Equations with Existing Systems" in the International Journal Communications on Applied Electronics. Volume 4, Number 9. DOI: <u>10.5120/cae2016652165</u>
- Nikita Agwankar, Sunil Surve and Sapna Prabu, "Development of Robust Security Options for Portable Data Storage Media", MULTICON-W 2014, International Conference & Workshop On Advance Computing, March 2014.
- Nikita Agwankar, Sunil Surve and Sapna Prabu, "Development Of Robust Security Options For Portable Data Storage Media", MULTICON-W 2014, International Conference & Workshop On Advance Computing, March 2014.

- Kadam, R.; Shajahan, S.; Malegam, K.; Wagle, K.; Surve, S."Localization and tracking of indoor mobile robot with beacons and dead reckoning sensors" in the 2014 IEEE Students' Conference on Electrical, Electronics and Computer Science (SCEECS) DOI: 10.1109/SCEECS.2014.6804452
- Radhika Nayak, Sunil Surve and Sapna Prabu, "Computational Complexity Based Development of Embedded System", MULTICON-W 2014, International Conference & Workshop On Advance Computing, March 2014.
- Vaibhav Jadhav and Sunil Surve. 'Formation and Synchronization of 4-Wheel Multiple Mobile Robot using Contraction Theory'; In the proceedings of International Conference on Electrical, Electronics and Data Communication(ICEEDC), November 2012.
- Ch. Venkatesh, Sunil Surve and N. M. Singh. <u>"Flatness based Formation Control of Nonholonomic Vehicles."</u> In the Proceedings of 2nd International Conference on Advances in Computing, Communication and Control, ICAC311, 28-29 January, 2011. Pages 486-493
- Janhavi B., Sunil Surve, Sapna Prabhu. "<u>Consensus based Dynamic Load Balancing for</u> <u>a Network of Heterogeneous Workstations</u>"; In the Proceedings of 2nd International Conference on Advances in Computing, Communication and Control, ICAC311, 28-29 January 2011. Pages 116-124
- Janhavi B., Sunil Surve, Sapna Prabhu. "Comparison of Load Balancing Algorithms in a Grid"; in the Proceedings of International Conference on Data Storage and Data Engineering, Bangalore, 2010. DOI: <u>10.1109/DSDE.2010.13</u>
- Janhavi B., Sunil Surve, Sapna Prabhu. "Graph Partitioning for a Network of Heterogeneous Workstations"; in the Proceedings of International Conference on Advances in Communication, Network, and Computing, Kerala, 2010
- Sunil Surve, N. M. Singh, and B. K. Lande, "Path Planning and Tracking for Coverage Task"; In the Proceedings of International ACM Conference on Advanced Computing, ICAC-2008, 21-22 February, 2008.
- Sunil Surve, N. M. Singh and B. K. Lande, "A Fast Coverage Algorithm for Multiple Mobile Robots. In the IURS Journal of Unmanned Robotic Vehicles and Intelligent Systems." Volume 1, Issue 1. September 2007. Page(s): 101 106
- Sunil Surve, N. M. Singh, B. K. Lande. "Coverage Path Planning based on Minimum Radius of Curvature"; in the Proceedings of International Conference on Recent Applications and Developments of Computer in Electrical Engineering, RACE'07, 24-2
- Sunil Surve, N. M. Singh, and B. K. Lande, "CPPA: A Fast Coverage Algorithm"; In the Proceedings of International IEEE Conference on Intelligence Systems and Multi-media Applications, ICCIMA'07, 13-15 December 2007. DOI: <u>10.1109/ICCIMA.2007.90</u>

Book Published (Editor for Conference Proceedings)

- Srija Unnikrishnan, Sunil Surve and Sameer Hemadi. <u>Proceedings of 1st International</u> <u>International Conference on Advances in Computing, Communication and Control,</u> <u>2009</u>, ACM, 2009, ISBN: 978-1-60558-351-8.
- Srija Unnikrishnan, Sunil Surve and Deepak Bhoir. <u>Proceedings of 2nd International</u> <u>Conference on Advances in Computing, Communication and Control, 2011</u>. ISBN: 97 Springer Heidelberg, 2011. ISBN: 8-3-642-18439-0 (Print) 978-3-642-18440-6
- Srija Unnikrishnan, Sunil Surve and Deepak Bhoir. <u>Proceedings of 3rd International</u> <u>Conference on Advances in Computing, Communication and Control, 2013</u> Springer Heidelberg, 2013. ISSN 1865-0929 e-ISSN 1865-0937, ISBN 978-3-642-36320-7 e-ISB
- Srija Unnikrishnan, Sunil Surve and Deepak Bhoir. <u>Proceedings of 4th International</u> <u>Conference on Advances in Computing, Communication and Control</u>, 2015. Procedia Computer Science, Vol 49, Elsevier ISBN: 9781510807839
- Srija Unnikrishnan, Sunil Surve and Deepak Bhoir. <u>Proceedings of 5th International</u> <u>Conference on Advances in Computing, Communication and Control, 2017</u>. IEEE, ISBN: 9781538638538.
- Srija Unnikrishnan, Sunil Surve and Deepak Bhoir. <u>Proceedings of 6th International</u> <u>Conference on Advances in Computing, Communication and Control, 2019</u>. IEEE, ISBN: 9781728123875

Other involvement:

- General Chair 6<sup>th</sup> International Conference on Advances in Computing, Communication and Control, 2019
- General Chair 5<sup>th</sup> International Conference on Advances in Computing, Communication and Control, 2017
- General Chair 4<sup>th</sup> International Conference on Advances in Computing, Communication and Control, 2015
- Conference Chair 3<sup>rd</sup> International Conference on Advances in Computing, Communication and Control, 2013
- Conference Chair 2<sup>nd</sup> International Conference on Advances in Computing, Communication and Control, 2011
- Conference Co-Chair 1<sup>st</sup> International Conference on Advances in Computing, Communication and Control, 2009
- Reviewer for Conference on Decision and Control 2014, 2015, 2016, 2017
- Reviewer for Journal of High Performance Computing
- Reviewer for various conferences

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<u>Pancreatic tumor detection using image processing</u> J Shah, S Surve, V Turkar Procedia Computer Science 49, 11-16	<u>11</u>	2015
<u>Motion control of wheeled mobile robots using fuzzy logic</u> RB Meshram	<u>8</u>	2013

International Journal of Recent Technology and Engineering 2 (3), 89		
<u>CPPA: A fast coverage algorithm</u> S Surve, NM Singh, BK Lande International Conference on Computational Intelligence and Multimedia	<u>8</u>	2007
Localization and tracking of indoor mobile robot with beacons and dead reckoning sensors A Lobo, R Kadam, S Shajahan, K Malegam, K Wagle, S Surve 2014 IEEE Students' Conference on Electrical, Electronics and Computer	<u>7</u>	2014
<u>Advances in computing, communication and control</u> S Unnikrishnan, S Surve, D Bhoir Advances in Computing 125	<u>7</u>	2011
Consensus based dynamic load balancing for a network of heterogeneous workstations J Baikerikar, S Surve, S Prabhu Advances in Computing, Communication and Control: International Conference	Ζ	2011
Deep Learning Framework for Facial Emotion Recognition using CNN Architectures RA Borgalli, S Surve 2022 International Conference on Electronics and Renewable Systems (ICEARS)	<u>6</u>	2022
Resource centric characterization and classification of applications using KMeans for multicores P Jain, SK Surve 2019 International Conference on Information Networking (ICOIN), 25-30	<u>6</u>	2019
Deep learning for facial emotion recognition using custom <u>CNN architecture</u> MRA Borgalli, S Surve Journal of Physics: Conference Series 2236 (1), 012004	<u>5</u>	2022
<u>A review on shared resource contention in multicores and its</u> <u>mitigating techniques</u> PN Jain, SK Surve International Journal of High Performance Systems Architecture 9 (1), 20-48	<u>5</u>	2020
<u>Measurement sets in power system state estimator in</u> <u>presence of false data injection attack</u> S Mangalwedekar, SK Surve	<u>5</u>	2015

2015 IEEE International Advance Computing Conference (IACC), 855-860		
<u>Sapna-10) Janhavi B</u> S Janhavi Sunil Surve, Sapna Prabhu "Comparison of load balancing algorithms in a Grid	<u>5</u>	
Dynamic real-time indoor environment mapping for Unmanned Autonomous Vehicle navigation C Aluckal, BK Mohan, Y Turkar, Y Agarwadkar, Y Dighe, S Surve, 2019 International Conference on Advances in Computing, Communication and	<u>4</u>	2019
Modeling resource constrained solo applications using logistic growth model PN Jain, SK Surve 2017 International Conference on Advances in Computing, Communication and	<u>4</u>	2017
<u>Comparison of a developed dual axis solar tracking system</u> <u>based on maximum power point tracking (MPPT) and</u> <u>astronomical equations with existing systems</u> A Borkar, S Surve Communications 4, 18-21	<u>4</u>	2016
Error propagation in linear and non-linear systems for false data injection attack S Mangalwedekar, SK Surve, HA Mangalvedekar 2015 International Conference on Advances in Computing, Communications and	<u>4</u>	2015
Advances in Computing, Communication, and Control: Third International Conference, ICAC3 2013, Mumbai, India, January 18-19, 2013, Proceedings S Unnikrishnan, S Surve, D Bhoir Springer	<u>4</u>	2013
Advances in Computing, Communication and Control: International Conference, ICAC3 2011, Mumbai, India, January 28-29, 2011. Proceedings S Unnikrishnan, S Surve, D Bhoir Springer	<u>3</u>	2011
<u>Compound Facial Expression Recognition and Pain Intensity</u> <u>Measurement Using Optimized Deep Neuro Fuzzy Network</u> RA Borgalli, S Surve International Journal of Swarm Intelligence Research (IJSIR) 13 (1), 1-27	2	2022

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