

# Biodata

- **Name** : **Shashikant Kisanrao Shinde**
- **Educational Qualification** : **M.Sc., NET (Electronic Science)**
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## 1. Educational Qualifications:

Examination	College/University	Year of passing	Subject	% Marks	Class
Ph.D.	Garvare Research Centre, Savitribai Phule Pune University, Pune	Ongoing	Electronic Science	-	-
NET	University Grants Commission	June 2012	Electronic Science	62	-
M.Sc.	Shivaji University	2007	Electronics	70.54	Dist.
B.Sc	Shivaji University	2005	Electronics	76.20	Dist.
H.S.C	Kolhapur Board	2002	Science	64.67	I
S.S.C	Kolhapur Board	2000	-	71.46	I

## 2. Positions Held:

Designation	Institute	From	To
Lecturer	Vidhya Pratisthan, Baramati	01/07/2008	30/04/2009
Assistant Professor (Visiting)	Solapur University, Solapur	03/07/2009	30/04/2011
Assistant Professor	Yashavantarao Chavan Institute of Science, Satara	14/11/2011	Still today
Coordinator and SPOC, NPTEL, SWAYAM, IITB local chapter		June 2015-Still Today	
Coordinator, Indian Institute of Remote Sensing (IIRS) outreach program		January 2017-Still Today	
Coordinator: M.Sc. Electronics, Department of Electronics, YCIS, Satara.		01/07/2018	30/04/2019
Coordinator: Yashavantrao Chavan Institute of Science, Centre for Invention, Innovation and Incubation (YC-CIII)		01/10/2018-Still today	
Coordinator and team leader e-Yantra Robotics lab setup, IITB, NMEICT		01/04/2019-Still today	
Coordinator , Virtual Lab, an Initiative by MHRD under NMEICT		June 2020 to Still today	

## 3. Research Publications: Total – 20

	International Journals/ Proceedings	National Journals/ Proceedings	Uni./State level Journals/Seminar Proceedings	Total
Published	02	04	-	06
Conferences/seminar abstracts	04	05	05	14
Patents	01	-	-	01
<b>Total</b>	<b>06</b>	<b>09</b>	<b>05</b>	<b>20</b>

#### 4. Conference/ Workshop/ Seminar/ attended: 52

	Conference	Workshop	Seminar	Total
<b>International</b>	09	-	-	08
<b>National</b>	08	03	04	15
<b>State/Regional</b>	01	22	06	29
<b>Total</b>	17	25	10	<b>52</b>

#### 5. Research Specialization:

- i. Microfluidics Lab-on-a-Chip (LOC)/Nano-Electronics
- ii. Precision Agriculture
- iii. Internet of Things (IoT)
- iv. Wireless Sensor Network
- v. Rural Development

- **Ph.D. Work:**

**Title: “Study of Microfluidics for Agricultural Nutrient Detection and its Application towards Lab-on-Chip”.**

Guide: Dr. M. L. Dongare

Co-Guide: Dr. P. B. Buchade

Garvare Research Center, Savitribai Phule Pune University, Pune.

#### 6. Particulars of Orientation/ Refresher/Faculty Training / Short term Training/ Development Program / Courses attended: 16

Sr. No.	Year	Name of Course
1	August 2014	At IIT Bombay, Wadhawani Lab "On Microcontroller Boards Pt-51, Aurum and Krypton Boards developed by e-prayog".
2	January 2015	Faculty training program on Research planning and technical paper writing
3	November 2016	Art of Living Youth Leadership Training Program (YLTP)
4	December 2016	GIAN Course on Nanoscale Wireless Networking at NIT Goa

5	February 2019	Faculty Development Program in Entrepreneurship, STP, NSTEDB-DST
6	June 2019	Faculty Development Program , YCIS, Satara, Sponsored by RUSA
7	August 2019	Task Based training for e-Yantra Lab set up Initiative (eLSI), IITB
8	June 04 - July 01, 2020	Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education by Ramanujan College, Delhi, Sponsered by MHRD
9	27 July -07 Aug, 2020	Faculty Development Programme on “Wireless Communication Technologies for IoT” jointly organised by Electronics and ICT Academies
10	August 10-14, 2020	TEQIP III Sponsored One Week Online Short Term Course on Cloud of Things: Theoretical and Practical Implications ,NIT, Jalandhar
11	24 – 29 August 2020	Online Faculty Development Programme on Quantum Computing 24 – 29 August 2020 jointly organized by the Electronics & ICT Academies and National Institute Of Technology, Arunachal Pradesh
12	30 November to 4 December 2020	FDP on " Augmented Reality (AR)/ Virtual Reality (VR)", AICTE Training And Learning (ATAL) Academy
13	(4-8) January 2021	Short term training on Artificial Intelligence and Emerging trends by ISTE, KBPCOE, Satara
14	(7 - 12 )January 2021	Six Days Online FDP on “Recent Trends in Biomedical Engineering” organized by the Department of Biomedical Engineering , VELTECH.
15	18 -22 January 2021.	AICTE Training And Learning (ATAL) Academy Online FDP on " Lab on Chip" .
16	1 - 5 <sup>th</sup> February 2021.	AICTE Training And Learning (ATAL) Academy Online FDP on " 3D Printing & Design", IIT Ropar

### 7. Individual Research Projects: 04

Title of Project Scheme	Funding Agency	Funds Received RS.	Date of starting	Date of ending	Role
1. Smart Farming: IoT based smart sensors agriculture stick for live soil moisture and temperature monitoring	Shivaji Univeristy, Kolhapur	10,000/-	01/10/2017	30/04/2018	P.I.
2. Development and Deployment of Lab-on-a –Chip Microfluidics system for Agricultural Detection ,Analysis and Diagnostic.	Seed money YCIS, Satara	30,000/-	01/10/2018	30/04/2019	P.I.
3.Digital Modelling and 3D Scanning of Historical Statue	RUSA/YCIS-CIII	1,62,500/	01/07/2019	Ongoing	P.I.
4.Retrofitting of 2 wheeler and 3 wheeler	Mutha Group and YCIS-CIII	-	01/09/-2019	Ongoing	Team Member
<b>Total</b>				<b>Rs. 2,02,500/</b>	

Departmental Project Prepared and Executed		
Project	Amount (Rs.)	Duration
COC Course on MATLAB Programming	20,00,000/	2014-18
UGC Conference MAGEC 2014	1,00,000/	2014-2015

• **Extension Activities:**

**I. Projects relevant to Society Need: 07**

- i. Study of the village upliftment of Kapshi, Phaltan District near Satara achieved by rainwater harvesting, personal development of the villagers and planned contribution to the same, TDSL Project with Centre for Technology Alternatives for Rural Areas (C-TARA), IIT Bombay.
- ii. Initiative to develop education, energy and healthcare alternatives in Tambave, TDSL (C-TARA), IIT, Bombay.
- iii. Education in The Rural Sector and Overall Development of a Tambave Village, TDSL (C-TARA), IIT, Bombay.
- iv. Shreeman Sheth Ganpatrao Suryavanshi Vidyalay, Tambave, renovation work with ex-students and villagers (25 Lakh fund collected).
- v. Panidar Koregaon- Water conservation project with IITB, COEP and State government .
- vi. Shikshan Yatra- To increase people participation in school, Loksahbhag, Angapur , Satara to Angapur Payi Yatra, State government drawn GR based on work.
- vii. Founder Kayapalat Forum, Granthalay and Vachanalay at Tambave, Tal. Phaltan, Satara May 2016.

**8. Membership of Professional, Academic and Social bodies/Organizations:**

- 1) **Life Member:** Society for Promotion of Excellence in Electronics Discipline (SPEED)
- 2) **Member :** The Institution of Engineering and Technology (IET), MIET
- 3) **Member:** The Indian Science Congress Association (Membership No. SLM2847)
- 4) **Life Member:** Institute of Scholars, INSC
- 5) **Member :** International Association of Engineers (IAENG)
- 6) **Associate member :**Universal Association of Computer and Electronics Engineers
- 7) **Member:** Shikshan Vikas Manch, Yashavantrao Chavan foundation, Mumbai
- 8) **Vice President:** Lokseva Parivar, Angapur, Satara (NGO).

**9. Honours/Prizes/Awards:**

- 1) Eklavya Scholarship for Higher education by Government of Maharashtra, 2006-07.
- 2) “Gunavant Shikshak” Award by YCIS, Satara, 2013
- 3) Editor, National Conference papers in MAGEC- 2014, proceeding, YCIS, Satara.
- 4) Editor, National Conference papers in ITEAT- 2017, proceeding, YCIS, Satara.
- 5) “Gunvant Shikshak” Bhairavanath Samajik Sanstha, Tambave, 2017
- 6) “ Margadarshak” Bhairavnath Navratra utsav Mandal , Tambave 2017
- 7) Rayat Shikshan Sanstha, Satara, Central Division, for contributing to renovate SSGSV, Tambave village school 2018.

## **10. Invited Talks/Speech/Pravachan:**

- 1) Internet of Things, Yashavantrao Chavan College, Karad, February 2019.
- 2) Padamabhushan Dr. Karmaveer Bhaurao Patil, Kumbhoj, January 2019.
- 3) Padamabhushan Dr. Karmaveer Bhaurao Patil, NSS, SSPM, Lonand, Satara 2018.
- 4) Internet of things for Agricultural applications, Dahiwadi College, Dahiwadi.
- 5) Science and Spirituality, NSS, YCIS, Malagaon, Satara 2018.
- 6) Jagar Vicharancha , Navdurga Utsav, Tambave, Satara, 2017.

## **11. National /International/Industry Collaborations:**

- 1) Indian Institute of Technology, Bombay (IITB)
- 2) Indian Institute of Remote Sensing, Deharadun (IIRS)
- 3) Indian Institute of Science, IISC, Bangalore
- 4) Amazon Web Services (AWS), Academy and Educate Programe.
- 5) IPR-ICT, Patent Portal, Department of Electronics and Information Technology, Government of India, Centre of Excellence in ICT-IPR, CDAC.
- 6) Industry-Think 3D, Vishakhapatnum, Andra Pradesh
- 7) Mutha Group, Satara.
- 8) Treel Mobility Solutions, Pune

## **12. Specific Contribution to teaching /Academic environment:**

### **I. Teaching:**

#### (a) Design of curriculum :

- As a Member of Board of Studies contributed in design of curricula in Electronic for Yashavantrao Chavan Institute of Science, Satara (Autonomous).
- Developed and implemented Curricula for Value added certificate and Diploma courses in MATLAB, Embedded system design,
- As a Course coordinator for YCIS-CIII, contributed for course module design with TATA Technologies, Pune. CAD, CAM and CAE, 3D printer and Scanning and Computer Aided Product Design.

#### (b) Teaching methods :

- New methods were evolved and experimented in teaching.
- Introduction of Augmented Reality (AR) concepts for learning
- Extensive use of Power point presentations in regular teaching, development of e-contents
- Implemented Industrial/Institutional Internship program for M.Sc. students

#### (c) Laboratory Experiments:

- New laboratory experiments were set up
- Design of special kits for electronics Lab
- Design and Development of Embedded and Electronics Communication Lab
- Microcontroller development systems and tools with e-prayog, IITB.
- Robotics lab setup with e-Yantra , IITB.

(d) Preparation of resources:

- Prepared laboratory manuals, course material
- Certificate courses.
- Contributed in Preparation of e-content

(f) Student Counseling :

- Participated in academic social counseling for students
- Student Alumni and placement activity
- Atal Tinckering lab project design workshop for school students.

(g) Guidance to students ( Project/Avishkar/Conference/Seminar):

- UG :16
- PG: 06

- **Academic and Co-curricular activities:**

Actively working with Institutions, Society and Industries for creating a harmonious teaching learning environment.

- 1) Member, "Science Conference", Organized by Rayat Vidyan Parishad and TIFR, March 2013, YCIS, Satara.
- 2) Member, " Karmaveer quize competition", January 2013, YCIS, Satara.
- 3) Member, TECH++", State level Seminar, 2014, 2015 and 2016 YCIS, Satara.
- 4) Co-Convener, National Conference on "Modern Approach for Green Electronics and Computing (MAGEC-2014), September 2014, YCIS, Satara.
- 5) Convener, "Shikshan Yatra", Padyatra from Angapur to Mumbai On 22th February to 8<sup>th</sup> March 2015.
- 6) Member, National hands on workshop on "Embedded System Design" 2015, YCIS, Satara and IIT Bombay.
- 7) Co-Convener, National Conference on "Innovative Trends In Electronics and Allied Technology (ITEAT-2017), February 2017, YCIS, Satara.
- 8) SPOC for NPTEL IIT local chapter, March 2016.
- 9) Coordinator IIRS outreach program for YCIS,Satara, January 2017.
- 10) Board of Studies Member for Electronics, Yashvantrao Chavan Institute of Science, Satara, Autonomous 2017.
- 11) Resourse person for Karmaveer Vidya prabhodini, Rayat Talent Search, 2017
- 12) Course-Cordinator Yashavantrao Chavan Institute of Science, Centre for Invention, Innovation and Incubation (YCIS-CIII), September 2018.
- 13) Coordinator and team leader e-Yantra lab setup, IITB, MHRD, NMEICT, project, March 2019.
- 14) Coordinator Entrepreneurship Awareness Camp organized by Scitech Park, Pune at Yashavantrao Chavan Insitute of Science, Satara, June 2019
- 15) Coordinator, Virtual Lab, IITB, MHRD, NMEICT, project, June 2020.



### **13. List of Important Research Publications:**

**(Journal/Conference/Proceeding/Abstracted): 20**

#### **I. International Journals: 01**

1. Wavelet Transform Based Techniques for Fault Detection of Power Supply Unit J. A. Wagh, **S. K. Shinde**, R. R. Mudholkar, P. P. Shah, IJEE Volume-6 Number-1 Jan-June 2014 pp.47-50 ISSN: 0973-7383.

#### **II. International /National Conference Proceedings: 04**

2. Application of Wavelet Transform and its Advantages Compared to Fourier Transform in Biomedical Signal Processing in Matlab Domain J.A. Wagh, **S. K. Shinde**, R.R. Mudholkar ICIASP-2013, Karad.
3. An Agricultural Environment Monitoring: A Wireless Sensor Network and Web Server approach. **S.K. Shinde**, T. H. Mujawar, V.B. Bachuvar, L.P. Deshmukh & A. D. Shaligram.NC2E 2014, Pune.
4. XBee –LabView based Wireless Sensor Network for gas Leakage Detection and Monitoring., T. H. Mujawar, V.B. Bachuvar, **S.K. Shinde** L.P. Deshmukh & A.D. Shaligram. NC2E 2014, Pune.
5. Fault Detection and Analysis of Power Supply Circuit for Energy Conservation: A Transform Approach J. A. Wagh, **S. K. Shinde**, R. R. Mudholkar, P. P. Shah MAGEC -2014, Satara, PP 198-202 ISBN : 978-81-928732-2-0

#### **III. International /National Conference Abstract : 15**

1. 3 D Printed Microfluidics Devices for Nutrient Detection in Precision Agriculture towards Lab-on-a -Chip **S. K. Shinde**, K.G. Kanade, P. B. Buchade, M. L. Dongare, A. D. Shaligram.
2. Microfluidics Based Sensors: A leading Technology towards Lab-on-Chip Sensing Application for Precision Agriculture, **S. K. Shinde**, J. A. Wagh, B. T. Jadhav, A. D. Shaligram, P. B. Buchade, M. L. Dongare, ICCEE February 2019, YCIS, Satara.
3. Microfluidics based Bio-sensors: a leading Technology towards Lab-on-Chip Sensing application for Precision Agriculture, **S. K. Shinde**, M. L. Dongare, B. T. Jadhav, A. D. Shaligram, ACS 2018, SMJC, Pune.
4. Internet of Things for Renewable Energy: Review **S. K. Shinde**, S. R. Pol, J. A. Wagh, B. T. Jadhav, RAREHD 2018, YCIS, Satara.
5. Wireless Communication at Nanoscale in Nano networks as New Communication Paradigm **S. K. Shinde**, A. D. Shaligram, ITEAT 2017, YCIS, Satara
6. Implication of Nanosensors and Lab-on-Chip for precision agriculture : A review **S. K. Shinde**, M. L. Dongare, A. D. Shaligram, IACR-2017, SMJC, Pune.
7. Fault Diagnosis in Analog Electronic Circuits: Wavelet Approach J.A. Wagh, **S. K. Shinde**, R. R. Mudholkar, P. P. Shaha LATEST-2014, Kolhapur.

8. Wavelet Transform Based technique for Fault Detection and Analysis for Analog Circuit, J.A. Wagh, S. K. Shinde, R. R. Mudholkar and P.P. Shah, NCAWSNA-2014, Akhuj.
9. Wireless nanosensor network, **S. K. Shinde**, L. P. Deshmukh, A. D. Shaligram, RTD-NSD-2013, Solapur.
10. Fault detection of Electronic Circuit using wavelet transform. J.A.Wagh, **S. K. Shinde**, R. R. Mudholkar, NCET-2012, Kolhapur.
11. Wavelet Based Fault diagnosis of Analog Circuit. **S. K. Shinde**, A. J. Pawar, J. A. Wagh RAET-2012, Pandharpur.
12. Advantages of Wavelet transform over Fourier transform., J. A. Wagh, A. J. Pawar **S. K. Shinde** R.R.Mudholkar, RAET-2012, Pandharpur .
13. Fault diagram in electronic Circuit using certifiable Neural Network A. J. Pawar, J. A. Wagh **S. K. Shinde** RAET-2012, Pandharpur.
14. FPGA Based home Automation System J. A. Wagh, **S.K. Shinde**, A. J. Pawar, NCAVDT-2011, Akhuj.
15. FPGA Design Flow on MATLAB Platform A. J. Wagh, **S.K. Shinde**, A. J. Pawar, NCAVDT-2011, Akhuj.