

# Department of Electronics

## 1. Departmental Profile

1.1 Name of the Department : Electronics

1.2 Year of establishment : 1984

1.3 List of Heads

Sr. No.	Name	Period
1	Prof. B. A. Managoli	1984-1992
2	Prof. D. V. Sutrave	1992-2004
3	Dr. G. S. Shahane	2004-till date

1.4 Courses run : B.Sc.

1.5 Bridge Courses : Handling of Electronics Instruments

1.6 College Certificate Courses :

1.7 University Affiliated Certificate Courses

1.8 No. of Teaching Staff : Associate Professor-02

1.9 List of CHB staff

1.10 No. of support staff : 03

1.11 Gold medalists : Nil

1.12 Special achievements

1. **Dr. G. S. Shahane** has received

- **Best Teacher Award 2017** by Solapur University, Solapur
- Award of Distinction: **Dr. H. N. Jagtap Best Teacher Award** by Dayanand Institutions, Solapur for the outstanding performance during the year 2010-11.
- Best Oral Paper Presentation Award (**First Prize**) at National Conference on Chemistry of Advanced Materials (NCCAM-2010) organized by Department of Chemistry, Arts, Science and Commerce College, Naldurg, March 01-03, 2010.
- **IASc-INSA-NASI Summer Research Fellowship** (2009) jointly offered by Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and National Academy of Sciences (India), Allahabad.
- Visited **Poland** (Oct. 2000) and **Russia** (Sep. 2001) for international conferences
- **Reviewer for International Journals** such as Materials Science in Semiconductor Processing, Materials Science and Applications, Journal of Alloys and Compounds, Iranian Polymer Journal, Advances in Materials Science and Engineering, Materials Research Bulletin, etc.

- **Member** of various professional bodies such as: Semiconductor Society India, The Indian Science Congress Association, Indian Society for Magnetic Fluid Research, Nanoscience and Nanotechnology Society
- **Member**, Board of Studies in Electronics

**2. Dr. D. S. Sutave has received**

- **Nominated as “College Development Committee ” member in DBF Dayanand college of Arts and Science, Solapur**
- **Coordinator of IQAC**
- **Coordinator of NAAC**
- Best Teacher Award by Dayanand Institutions in 2012
- Member: Board of Studies in Electronics
- **IASc-INSA-NASI Summer Research Fellowship** (2008) jointly offered by Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi and National Academy of Sciences (India), Allahabad.
- Visited **Poland** (Oct. 2002) for international conferences
- **Reviewer for International Journals Elsevier group** such as *Energy Research & Social Science*.
- Falcitated By Samast Namdeo Shimpi Samaj Solapur for Two times
- Appreciation of Research Work By Dayanand Institution Solapur
- Award of Distiction By Dayanand Institution Solapur
- LIC Member for B.Sc. Affiliation, B.C.S, PG Course, etc

1.13 Time Table

1.14 Facilities: Recognized Research Laboratory for Ph.D

1.15 Research Area: Gas Sensors, Ferrofluids,

Supercapacitors, WSN and Embedded Systems

1.16 Publications No.

**1.17 Conferences/ Seminars/ Workshops Organized**

<b>Sr. No.</b>	<b>Name of Conference</b>	<b>Convener</b>
1	State Level Seminar on Probes and Sensors of Physics and Electronics in New Millennium (PROSPENM) Dec. 17-19, 2004	Prof. V. N. Dhayagude and Prof. D. V. Sutrave
2	Workshop on Advanced Electronic Instruments and their Maintenance Jan. 17-18, 2007	Dr. G.S. Shahane
3	National Conference on Advanced Nanomaterials,	Dr. G.S. Shahane

	Sensors and Instrumentation (NCANSI 2010-11) Jan 21-22, 2011	
4	Workshop on Revised Syllabus at B.Sc. III Electronics (Semester Pattern) Dec. 02, 2012	Dr. G.S. Shahane
5	National Workshop on Soft Skills of PCB Designing Dec. 29- 30, 2017	Dr. G.S. Shahane
6	National Seminar on Intellectual Property Rights Mar. 26, 2018	Dr. G.S. Shahane

### **D S Sutrave Secretary for**

**1.National Workshop on “Soft Skills of PCB Designing” 29-30 Dec. 2017**

**2. National Seminar on “Intellectual Property Right” 26<sup>th</sup> February 2018**





#### 1.18 Grants received for Projects

<b>Sr. No</b>	<b>Name</b>	<b>Principal Investigator</b>	<b>Name of Scheme</b>	<b>Funding Agency</b>	<b>Grant allocated</b>	<b>Remarks, if any</b>
1	Growth and Characterization of p-CdTe Thin Films and Pellets for Photovoltaic Applications	Dr. G. S. Shahane	Minor Research Project 47-139/2002 (WRO) Dec.12, 2002	UGC (WRO) Pune	40000/-	Completed
2	Synthesis and Characterization of Nanocrystalline Zinc Oxide Thin Films and Their Applications	Dr. G. S. Shahane	Minor Research Project 47-263/2007 (WRO) Mar.20, 2008	UGC (WRO) Pune	70000/-	Completed
3	Development and Implementation of Nanocrystalline Metal Oxide Gas Sensor Array Network for Pollution Monitoring	Dr. G. S. Shahane	Minor Research Project 47-031/12 (WRO) 4 FEB. 2013	UGC (WRO) Pune	106000/-	Completed
4	Size-Controlled Synthesis and Characterization of Mn-Zn Superparamagnetic Nanoparticles for Ferrofluid Application	Dr. G. S. Shahane	Major Research Project SB/S2/CMP-006/2013 dated 20/06/2014	SERB, DST, New Delhi	1932000/-	Completed




5	Chemically Grown (Cd,Zn)(Se,Te)Thin Films and Pellets: Properties and Applications	Dr. D. S Sutrave	F-47-140/2002 (WRO)	UGC/ MRP	47000/-	Completed
6	Antimony Doped Tin Oxide Thin Film Gas Sensors	Dr. D. S Sutrave	F-47-368/07(WRO)	UGC/ MRP	100000/-	Completed
7	Development Of Supercapacitor Based On Metal Oxide Thin Film	Dr. D. S Sutrave	UGC MRP F-42-123/2013(SR)	UGC New Delhi	1387704/-	Completed

## 6. List of research guides along with enrolled students





### 1. Research students working under Dr. G. S. Shahane

Sr. No	Photo	Name	Title of the Thesis	Reference No.	Degree awarded
1		Mr. R. V. Vidap	Portable Pollution Monitoring System (PPMS) Based on Zinc Oxide Gas Sensor Array Network	SUS/BCUD/PGBUTR/2010-11/828 Dt. 4 Oct. 2010	Working
2		Mr. K. V. Zipare	Synthesis and Characterization of Mn-Zn Ferrite Nanoparticles for Ferrofluid Application	SUS/BCUD/PGBUTR/2011-12/9517 Dt. 21 Sep. 2012	Thesis submitted
3		Mr. E. K. Kore	Development and Characterization of Co-Zn Ferrite Nanoparticles by Facile Chemical Route: Application to Ferrofluid	SUS/BCUD/PGBUTR/2012-13/8457 Dt. 21 Sep. 2012	Working
4		Ms. J. G. Dhumal	Size-Controlled Synthesis and Characterization of Superparamagnetic $Fe_{1-x}Mn_xFe_2O_4$ Nanoparticles for the Development of Ferrofluids	SUS/BCUD/PGBUTR/2012-13/8461 Dt. 21 Sep. 2012	Working

**1. List of Research students completed Ph.D. under Dr. D. S. Sutrave**

<b>Sr. No</b>	<b>Photo</b>	<b>Name</b>	<b>Title of the Thesis</b>	<b>Reference No.</b>	<b>Degree awarded</b>
1		Mrs. Jogade S.M.	Ph.D. in Electronics	Development of metal oxide based supercapacitor and Designing of microcontroller embedded system for Characterisation of supercapacitor.	Ref. EXAM/Ph.D./2018/ Awarded on 5 <sup>th</sup> March 2018
2		Mrs. Joshi P.S.	Ph.D. in Electronics	Fabrication, Characterization of Doped RuO <sub>2</sub> Supercapacitor and Development of microcontroller based Instrumental set-up	Ref. EXAM/Ph.D./2018/1375 Awarded on 23May 2018
3		Mr. Gothe S.D.	Ph.D. in Physics	RuO <sub>2</sub> – MoO <sub>3</sub> Composite Thin Films for Supercapacitor	Ref. EXAM/Ph.D./2018/ Awarded on 7 <sup>th</sup> April 2018

### Research students working for Ph.D.under Dr. D. S. Sutrave

Sr. No	Photo	Name	Title of the Thesis	Reference No.	Degree awarded
1		Mr. Jamadar B.N.	Ph.D. in Electronics	Design and Development of PWM Technique for three phase Induction motor Drive with auto fault detection	Final Thesis Submitted
2		Mr. Gavhane P.S.	Ph.D. in Electronics	Development of wireless sensor network to monitor water quality.	Working
3		Mr. Gaikwad S.S.	Ph.D. in Physics	Synthesis and Characterisation of MnO <sub>2</sub> -NiO Composite Thin Films for Supercapacitor	Working
4		Ms. Relekar A.S.	Ph.D. in Electronics	Development Of Wireless Sensor Network : Monitor The Parameters In Green House	Working

### 3. Profiles of Support Staff

Sr. No.	Name	Designation	Qualification	Date of joining
1	Mr. M. M. Gangji	Lab. Attendant	B.Com., GDCA	2013
2	Mrs. Sunanda Vankore	Peon	-	
3	Mr. Mohan Jawaiwala	Peon	9 <sup>th</sup> pass	1992