

About the Department

Department of Electronic Science was established in 1985, which is the year when this course started in SPPU, Pune. Electronic Science subject is developed with a focus on bridging the gap between Science and Engineering & Technology. The Undergraduate course in Electronic Science was introduced in 1985. Industrial skills among the students and for employability. Qualified faculty involved in teaching as well as research activities. The faculty has succeeded in keeping a lively atmosphere among the students, with timely up gradations in the curriculum and innovative teaching techniques.

The department has well-equipped laboratories. At TY level curriculum specialized courses in the subject such as Microcontrollers, Power Electronics, Industrial process control, Advanced communication, etc. Most of the faculty members are experts in their respective fields of research and teaching, and their contributions are evident through their research publications in reputed international journals and recognitions by various national and international academic bodies. Research projects are funded by UGC, BCUD-SPPU, Pune and are being handled by the faculty to pursue excellence in research. The department also maintains a link with Industries and Institutes through workshops, visits etc. During last five years, Department of Electronic Science organized a Seminar/workshop on 'E-learning: Resources, applications and Effectiveness', 'Recent Trends in Image Processing'. In addition, the Department organizes training programs for teachers and students in frontier areas of Electronic sciences on a regular basis, Such as workshop on Mobile repairing at SY and TY level.

The department has an active alumni and a continuous interaction is done with the past students for their placements and also for the benefit of students presently studying in the college. Majority of Alumni are acclaimed Professors, Engineers in companies. Feedback from alumni helps to conduct activities in the department with focus on soft skill, industrial guidance, research area etc.

Highlights of the Department

Adequate Infrastructure	Practicals on Bread board
Well Equipped Laboratories	Research projects by the faculty
Qualified Faculty	Publications of faculty
Student Projects at UG	Paper presentations
Grants from additional assistance from UGC eleventh plan	Active Participation in curriculum dev.
Personal attention and counselling	& workshops/seminars/conferences
Departmental Library	Department level Alumni
Collection of e-resources	Guest lectures and seminars,
ICT enabled Laboratories	Study tours/Industrial visits
Participation in Project Competitions	Active Participation in college activities
Demonstrations by kits	

Faculty conducting *YouTube* channel for Electronics



About the course

Electronics which means learning the way how an electron behaves under different conditions of externally applied fields. Electronics means study of flow of electrons in electrical circuits. It is the branch of physics and technology concerned with the design of circuits using transistors and integrated circuits etc. and with the behaviour and movement of electrons in a semiconductor, conductor, vacuum, or gas. The field of electronics is widely expanding and there has been tremendous advancement during past few decades. It is playing crucial role in everyone's life and has a wide impact on the society, nations and on the world too. With the demand of market and advancements of researches in this field, day by day newer gadgets are arriving in the market. The use of electronic devices has revolutionized everyone's life because their features have somehow made our lives easier. The fields of application of electronics are Information processing, signal processing, Entertainment, Communication, Defence, Astronomy, Industrial, Engineering, Medical, instrumentation, household etc.

Aim and Objectives

Electronic Science is the applied science subject. It is developed with a focus on bridging the gap between Science, Engineering and Technology.

The aim of the course is to generate trained manpower with adequate theoretical and practical knowledge of the various facets of electronic circuits and systems. Due care is taken to inculcate conceptual understanding in basic phenomena, materials, devices, circuits and products and development of appropriate practical skills suitable for industrial needs.

Following are the objectives –

- i. To design the syllabus with specific focus on key Learning Areas.
- ii. To equip student with necessary fundamental concepts and knowledge base.
- iii. To develop specific practical skills.
- iv. To impart training on circuit design, analysis, building and testing.
- v. To prepare students for demonstrating the acquired knowledge.
- vi. To encourage student to develop skills for accepting challenges of upcoming technological advancements.

About the Curriculum

The curriculum includes theory courses along with hands on skills and project component. The UG program is a 3year course

Semester Pattern with CGPS is followed at UG to PG. Electronic Science. Second year B.Sc. syllabus is desired to provide core technical skills in design, analysis, building and testing electronic blocks / circuits. Training on equipment handling and maintenance is also included. In the theory courses adequate knowledge of Analog circuit design, digital circuit design, communication systems and electronic circuit measurement and testing instrumentation knowledge will be acquired by the students.

Student taking admission at S.Y.B.Sc. Electronic Science have to complete 4 theory courses two each semester and two practical course in the practical course of 50 marks there are compulsory experiments along with the activities to be done. There are two types of activities – One carried out by the student in his own area of interest and other to be arranged by teachers for enhancement of the practical quality and skills of the students.

Semester Pattern is also followed at third year B.Sc. Syllabus is designed to provide an insight into applications of various circuit blocks, design analog and digital systems, methods to analyse working of systems and some of consumer products. Training on system design and simulations, learning programming languages like "C" and tools like "MATLAB" is included. A course in Project work is maintained in new syllabus and a guideline for it is framed.

In the theory courses adequate knowledge of Analog systems design, digital system design, communication systems, basics of nanotechnology, Nano electronics will be acquired by the students. Student taking admission at T.Y.B.Sc. Electronic Science have to complete 16 theory courses six each semester, four practical courses and two project course In the practical course of 50 marks there are compulsory experiments along with the one activity to be done for practical course I and II. The details are mentioned in the syllabus.

After B.Sc. and M.Sc. Electronics one can get into electronic companies as Graduate Engineer Trainee, Purchase Manager or Trainee Technician. It is also possible to join public sector undertakings like National Collateral Management Services Limited (NCMSL), Indian Space Research Organization (ISRO), IIT institutes, Bharat Electronics Limited (BEL) and Bharat Heavy Electricals Limited (BHEL) etc. as Research Scientist, Manager or Engineer Trainee. These graduates can take part in the on compulsory off-campus recruitment drives for joining private companies while notification will be published for the recruitment to public sector organizations. The candidates can also try for All India level

entrance tests like Air Force Common Admission Test (AFMCAT), National Eligibility Test (NET), and State Eligibility Test (SELT) etc. They can join Indian Space Research Organization (ISRO) as Research Scientist. They can get into the post of Junior Executive (ATC) in AirPort Authority of India (AAI). Those who are interested to work in Defence service can join Indian Air Force as Aeronautical Engineer (Electronics). If these postgraduates are interested to work in the field of teaching, then they can join reputed college /Universities as Assistant Professor.

Course Structure

Title of the Paper:

Class	Course No.	Course Title	Course Type	Credits
F.Y.B.Sc	EL-111	Basics of Applied electronics	Theory	2
	EL-112	Electronic Devices and circuits	Theory	2
	EL-113	Electronics Practical	Practical	2
	EL-121	Fundamentals of Digital electronics	Theory	2
	EL-122	Analog and Digital Device Applications	Theory	2
	EL-123	Electronics Practical	Practical	2
S.Y.B.Sc	EL-231	Communication Electronics	Theory	2
	EL-232	Digital System design	Theory	2
	EL-233	Electronics Practical	Theory	2
	EL-241	Analog circuit Design	Theory	2
	EL-242	Microcontroller and python programming	Theory	2
	EL-243	Electronics Practical	Practical	2
T.Y.B.Sc.	EL 351	Digital Design and Verilog	Theory	2
	EL 352	Microcontroller Architecture & Programing	Theory	2
	EL 353	Analog circuit Design and applications	Theory	2
	EL 354	Nanoelectronics	Theory	2
	EL 355	Signals and Systems	Theory	2

	EL 355	A. Optics and Fiber Optic communication	Theory	2
	EL 357	Practical Course – I	Practical	2
	EL 358	Practical Course – II	Practical	2
	EL 359	Project Course	Practical	2
	ELSEC 351	Electronic Design Automation Tools	Theory	2
	ELSEC 352	Internet of Things and Applications	Theory	2
	EL 361	Modern Communication Systems	Theory	2
	EL 362	Embedded System Design using Microcontrollers	Theory	2
	EL 363	Industrial Electronics	Theory	2
	EL 364	Manufacturing Processes for Electronics	Theory	2
	EL 365	Process Control Systems	Theory	2
	EL 366	A. PLC SCADA	Theory	2
	EL 367	Practical Course – I	Practical	2
	EL 368	Practical Course – II	Practical	2
	EL 369	Project Course	Practical	2
	ELSEC 361	Design and Fabrication of PCB	Theory	2
	ELSEC 362	Mobile Application Development	Theory	2
M.Sc-I	ELUT111	Mathematical methods in Electronics using C	Theory	4
	ELUT112	Analog Circuit Design	Theory	4
	ELUT113	Digital System Design	Theory	4
	EDTT114	Fundamentals and applications of PIC Microcontrollers	Theory	2
	ELUP115	Practical Course (Compulsory Course)	Practical	4
	ELDP114	Practical Course (Elective course)	Practical	2
	ELUT121	Applied Electromagnetics, Microwaves and Antennas	Theory	4
	ELUT122	Instrumentation and Measurement Techniques	Theory	4
	ELUT123	Foundation of Semiconductor Devices	Theory	4
	EDTT124	Elective Theory Course 2	Theory	2
	ELUP125	Practical Course 4	Practical	4

		(Compulsory Course)		
	ELDP124	Practical Course 3 (Elective course 2)	Practical	2
M.Sc-II	ELUT231	Advanced communication	Theory	4
	ELUT232	Mechatronics and robotics	Theory	4
	ELUT233	Control systems	Theory	4
	EDTT234	Elective Theory Fundamentals of Internet of Things	Theory	2
	ELUP235	Practical (Compulsory Course)	Practical	4
	ELDP234	Practical (Elective course)	Practical	2
	ELT241	PLC Programming and Applications	Theory	2
	ELP241	Practical course in PLC Programing & Applications	Practical	2
	ELT242	MOOCs courses 4	Theory	4
	ELT243	Technical writing	Theory	4
	ELP244	Project/Internship	Practical	8

Faculty Profile

Sr. No.	Name	Qualifications	Designation	Experience	Photo
1	Prof. Kadlag B. N.	M.Sc. SET, NET	Head and Asst. Professor	12	
2	Dr. Wankhede S. A.	M.Sc. NET, SET, PhD, ADSAP	Asst. Professor	18	
3	Prof. Kadlag D. N.	M.Sc. NET, SET	Asst. Professor	09	

4	Smt. Nikam P.B.	M.Sc., SET	Asst. Professor	08	
5	Smt. Jagtap R. D.	M.Sc., NET	Asst. Professor	05	
6	Smt. Veer G. P.	M.Sc., SET	Asst. Professor	04	

Positions Held /Membership

Name of the faculty	Positions Held
Prof. B. N. Kadlag	Academic Research Coordinator (A.R.C.)
Dr. S. A. Wankhede	Coordinator, Remedial Teaching: June 2011 to April 2013. Practical Exam Coordinator for SYBSc (Comp Sci) in Electronics for Nashik District: April 2013 to Oct. 2015, March 2019. Chairman of Electronics of S.Y.B.Sc. (Computer Science) C.A.P. Oct. 2018: 27/10/2018 to 22/11/2018. First Polling Officer, 2019 Maharashtra Election, in Chandwad Assembly Constituency: 20 & 21/10/2019 PRO, 2021 Grampanchayat Election, Ranwad, Tal. Niphad: 14/01/2021 Local Selection Committee for Electronic Science faculty in KKW College, Nashik: 18/09/2021 Local Selection Committee for Electronic Science faculty in LVH College, Nashik: 17/08/2022 Local Selection Committee for Electronic Science faculty in KKW College, Nashik. Practical Exam Coordinator for SY & TYBSc (CHNA) in Electronics for Nashik/Nagar/Pune District: 2022, 2023
Prof. D. N. Kadlag	Chairman of Computer Hardware and Networking Administration of F.Y.B.Sc. Paper setter 2020, 2021

Workshop/Seminar Organised By the Department

Sr. No.	Title of seminar	Date	Organizing Committee
1	State level Workshop on 'E-learning: Resources, applications and Effectiveness' Sponsored by BCUD SPPU Pune	28 th Mar.2013	Prin. Dr. B.G. Wagh (Principal) Dr. M.B. Matsagar (Coordinator) Prof. B.K. Aher (Member) Prof. B.N Kadlag
2	State Level Seminar on "Recent Trends in Image Processing" Sponsored by BCUD SPPU Pune	21-22 Jan 2016.	Prin. Dr. Dilip Shinde (Principal) Prof. B.K. Aher (Coordinator) Prof. B.N Kadlag Member Prin. Dr. B.G. Wagh ,Prin. Dr. G. H. Jain Prof. Dr. M.B. Matsagar Prof. Dr. V.S. Kale, Prin. Dr. S.S. Kale
3	State Level Seminar on "Mobile Repairing" for UG/PG Students Sponsored by BCUD SPPU Pune	08-09 Jan. 2019	Prin. Dr. S.S. Ghumare Prof. B.K. Aher (Coordinator) Prof. B.N Kadlag Member Dr. S. A. Wankhede

Guest lecturers Organized

Sr. No.	Name	Institute / Company	Topic of the Lecture	Date
1	Dr. Nagrajan	Centre for Excellence in Science Basic Sciences	Demonstration and Lecture on Basic Science Practicals	18/12/2012
2	Mr. Sagar Bhalerao	Tampere University of Technology Finland	Internet of Things	03/04/2018
3	Dr. A. D. Shaligram	Department of Electronics, SPPU, Pune.	Mobile Repairing Profession	07/01/2019
4	Sagar Bhalerao	Temper University of technology Finland	Internet of Things	
5	Tushar Aher	Engineer, Intel, Bangalore	Opportunities in Electronics	07/10/2023

Visits of Scientists/academicians/Renowned persons to the department

Sr. No.	Name of Visitor/ Eminent Person	Date of Visit
1	Prof. R. Nagrajan, Prof. B. D. Chakradeo, Prof. Jayant Joshi Mumbai University- Dept. Atomic Energy Centre for Excellence.	18/12/2012
2	Dr. Anil Kakodkar, Indian nuclear scientist, Mumbai.	26/01/2016
3	Dr. R.S. Tiwari, Director, School of Computer Science, YCMOU, Nashik	21 st Jan. 2016
4	Dr. A.D. Shaligram, Registrar, Dr. D.C. Gharpure, Dept. of Electronic Science, SPPU, Pune	22 nd Jan. 2016,
5	Dr. A.D. Shaligram and Mr. Sharad Pustake	07 th Jan. 2019

Co-curricular/ Extra Curricular Activities of the Faculty

1. Prof. B. K. Aher

Sr. No.	Title of the activity
1	Worked as Head of the electronic Science Department
3	Worked as senior supervisor, paper setter, examiner for University exams
4	District Coordinator for TYBSC Practical Examination
5	Chairman / Member of Time table committee
6	Chairman Income tax Committee
7	Coordinator SSDP Programme upto2014. Chairman sixth pay fixation committee

2. Dr. S. A. Wankhede

Sr. No.	Title of the activity
1.	Conducted 'Runanubandh' Wall magazine in the K.T.H.M. College
2.	Conducting Youtube channel 'Somnath Wankhede' for Electronics students to get information of Microcontroller with animation in regional language.
3.	Completed course on "Remote Sensing and GIS Applications in Carbon Forestry" conducted by this institute during 16 th Feb. 2017 to 10 th March 2017.

4.	Completed course on “Geoinformatics for forest fire management” conducted by this institute from 02 nd April 2018 to 07 th April 2018.
5.	Chairman of NAAC Criteria V, College website, time table Committee
6.	Member of IQAC Committee, Placement Committee, etc.
7.	Participated in the curricular and extracurricular activities of the College as a member of various committees.
8.	Coordinator, S.Y.B.Sc.(Comp. Sci.) Practical Examination, Nashik District, From March 2017 to March 2018.
9.	Chairman of Electronics of S.Y.B.Sc. (Computer Science) C.A.P. Oct. 2018
10.	Practical Exam Coordinator for SY & TYBSc (CHNA) in Electronics for Nashik/Nagar/Pune District: 2022, 2023

3. Prof. B. N. Kadlag

Sr. No.	Title of the activity
1	Chairman F. Y. B. Sc. online admission committee of college.
2	Coordinator of regional research conference “Zonal Level Avishkar 2016” organized by college
3	Coordinator for Orientation lecture for Avishkar organized by college
4	Member IQAC

Faculty as a Resource Person

Sr. No.	Name	Topic	Place	Date
2	Prof. B.N. Kadlag	NET-SET one Day Workshop	Shri . Neminath Jain Arts, Commerce and Science College, Chandwad	15-12-2011
		Soft Skill Development	K. K. Wagh College, Kakasaheb Nagar	12-01-2013
		Cyber Security Awareness	Janata Vidyalay Pimpalgaon Baswant	29-09-2018
		Soft Skill Development	K. K. Wagh College, Pimpalgaon Baswant	05-01-2019
3	Dr. S. A. Wankhede	VHDL Programming.	LVH College, Nashik.	24 th Sept. 2009.
		MATLAB Programming.	CMCS College, Nashik.	21 st Dec. 2010.
		NASM Programming.	National Senior College, Nashik.	06 th Sept. 2011.
		Microprocessor Basic & Application.	National Senior College, Nashik.	27 th Sept. 2011.

Programming in 8051 Micro controller.	HAL College, Ozar Township.	19 th Dec. 2011.
MATLAB Applications in Soft Computing.	KSKW College, Cidco, Nashik.	27 th Sept. 2012.
Basic Analog Electronics.	LVH College, Nashik.	30 th Dec. 2012.
Digital Signal Processing.	Ashoka College, Nashik.	01 st Jan. 2013.
Analog Electronics using Opamp.	LVH College, Nashik.	13 th March 2013.
MATLAB Applications in Image processing.	KTHM College, Nashik.	15 th March 2013.
Microprocessor Basic & Application.	Ashoka College, Nashik.	04 th Feb. 2014.
Embedded system & interfacing using C programming.	KKW College, Nashik.	10 th Dec. 2014.
Interfacing & programming of 8051 microcontroller.	Ashoka College, Nashik.	16 th Feb. 2014.
Fire Security and Safety using IoT's	Bhonsala Military College, Nashik	05 th Jan. 2019
Study of 8051 microcontroller in regional language.	Modern College, Ganesh Khind, Pune	04 th Feb. 2019
Study of AVR Microcontroller	LVH College, Nashik.	04 th Nov.2019
NET/SET Guidance to MSc Electronics students	LVH College, Nashik.	05 th Nov. 2019
Programming 8051 in KEIL Software	KKW College, Nashik.	14 th Dec. 2019
Programming in 8051 Microcontroller.	KSKW College, Cidco, Nashik.	23 rd Jan. 2020
Need of Mother Tongue in Education	Bhonsala's Shishu Vihar English Medium, Nashik	04 th Sept. 2020
Simple principles of Electronics	Malpani College, Sangamner District Ahmednagar	01 st Feb. 2021
Recent Advances in Audio and Video Production	Yashavantrao Chavan Institute of Science, Satara	08 th Jun. 2021
Mechatronics and Industrial Automation	K. K. Wagh Polytechnic, Nashik	17 th August 2021

		"Introduction to IoT, Mechatronics, Automation and Robotics	New Arts, Commerce & Science College, Ahmednagar	08 th Dec. 2021
		Introduction to Proteus	MGV's MSG College, Malegaon	24 th Jan. 2022
		NET/SET Guidance to MSc Electronics students	LVH College, Nashik.	20 th Feb. 2023
		Trends in Electronics	KKW College, Ranwad	23 rd Oct. 2023
4	Mrs . G. P. Vee r			

Study Tours and Excursions

Sr. No.	Place of Visit	Date
1.	BSNL telephone Exchange	10/10/2011
2.	GMRT Khodad Narayangaon, IUCAA Pune,	28- 29 /02/2014
3.	Regional forensic laboratory, Nashik	01/02/2017
4.	Krishithon, Nashik	16/02/2018
5.	Renuka Instruments, Nashik	23/03/2018
6.	Krishithon	24/11/2019
7.	Savergaon Hony Bee Park	31/12/2019
8.	GMRT Khodad Narayangaon, IUCAA Pune,	24/01/2020

Year 2016-17:



(T.Y.B.Sc. Electronics students with Prof. B. N. Kadlag, Dr. S. A. Wankhede and Prof. Smt. P. B. Nikam at Renuka Instruments, Nashik)

Year 2017-18 :



(T.Y.B.Sc. Electronics students with Mr. Ganesh Dhadbale (Director, Renuka Instrument), Prof. B. K. Aher (Head Dept. of Elect. Sc), Prof. B. N. Kadlag, Dr. S. A. Wankhede.)



(Mr. Ganesh Dhadbale (Director, Renuka Instruments), delivering demonstration of photospectrometer)



T.Y.B.Sc. students visited to Krishithon a agriculture Exhibition

Year 2019-20



(S.Y. & T.Y.B. Sc. Electronics Students visited at the Giant Meter wave Radio Telescope (GMRT), Khodad, Narayangaon Puneon 24/01/2020)



T.Y.B.Sc. students visited to Krishithon 2019



Visit to Savergaon a model village developed by PURWA Chemicals



Visit to Savergaon a model village developed by PURWA Chemicals

Avishkar Projects competition participation

Sr. No.	Title of the Project	Name of the student	Class
1.	LPG Gas Detector Alarm system	Pagar Bapu Ratan	T.Y.B.sc. 2012
2.	Simple Home Security System	Aher Shital Somnath	T.Y.B.sc. 2014
		Zoman Megha Dilip	S.Y.B.sc. 2014
3.	Low cost Intruder detector for various Applications	Thete Tejshri Chandrakant	T.Y.B.sc. 2014
		Veer Gayatri Pradip	T.Y.B.sc. 2014
	Sensitive LPG gas leakage Alarm	Jadhav Jyoti Dnyaneshwar	T.Y.B.sc. 2014
4.	Real Time Face Recognition System	Jagtap Vishal Devidas	T.Y.B.Sc. 2015
		Jadhav Shrikrishna B.	
5.	Anti Bag Snatching Alarm	Jagtap Rani D.	T.Y.B.Sc. 2015
		Wasulkar Tejswini P.	
6.	Fire Alarm Circuit	Patil Rani N.	T.Y.B.Sc. 2015
		Pund Megha B.	
7.	Break Failure Indicator	Agale Nilesh U.	T.Y.B.Sc. 2015
		Watpade Sandip R.	
8.	Cell Phone Detector	Date Sanvedana D.	F.Y.B.Sc. 2015
		Dusane PooJa P.	
9.	Smart Home automation system Using Aurdino Android	Gangurde Sapana Shivaji	T.Y.B.Sc. 2016
		Khaire Pratiksha Kondaji	
10.	Portal solar Mobile Charger	Niphade Monali Eknath	T.Y.B.Sc. 2016
		Gaikwad Poonam Ramesh	
11.	Arduino based automatic Fan speed controller	Watpade Akshay sanjay	T.Y.B.Sc. 2017
		Shinde Akshay Somnath	T.Y.B.Sc. 2017
12	IOT based Agriculture System	Dhumal Shubham Tanaji Lokhande Mahesh Suryabhan	T.Y.B.Sc. 2019



Avishkar 2016 Inaugrated by Dr. V. B. Gaikwad,
Director, BCUD on 03/12/2016

Avishkar 2017 university level
participation of T.Y.B.Sc. students

Nashik Innovation Fest 2018 Sponsored By Sakal Papers

Sr. No.	Title of the Project	Name of the student	Class
1	Solar power automatic plant irrigation system using microcontroller	Aher Dinesh Nandu	T.Y.B.Sc. 2018-19
	Earthquake indicator using Arduino	Dhamane Minal Bharat	
2	Water level controller using Arduino	Gadakh Divya Rajesh Jadhav Ujwala Dnyaneshwar	T.Y.B.Sc. 2018
3	Electronic Notice Board Using Bluetooth And Arduino	Jagdale Nitin Nanasaheb	T.Y.B.Sc. 2018
	line follower robot using Microcontroller	Kadale Akshara Pandharinath	
4	Blood Group Detection using Microcontroller	Purkar Sonal Raosaheb Shinde Akshay Somnath	T.Y.B.Sc. 2018
5	Digital IC tester using Microcontroller	Shirsath Pratiksha Kailas	T.Y.B.Sc. 2018
	Obstacle avoiding robot using Arduino	Watpade Akshay Sanjay	



Nashik Innovation Fest 2018 Sponsored By Sakal Papers

Science Exhibition Competition Participation

2017-18



2018-19



2019-20



Students Projects conducted

2016-17

Sr.No.	Name of The students	Project title
1.	Aher Arti Rajendra	Automatic fan Controlling Using Arduino
2.	Gaikawad Punam Ramesh	Implimentation of passive IR Sensor In Street light Automation System
3.	Gangurde Sapana Shivaji	Arduino Based Android Control Robotic Car Using Bluetooth HC-
4.	Khaire Pratiksha Kondaji	Home Automation Using Smartphone
5.	Kumbharde Pradeep Laxman	Rotton Onion Detection Using MQ135 Sensor
6.	Niphade Monali Eknath	Arduino Based Polyhouse Monitering system
7.	Shinde Sanket Vilas	Micricontroller Based Smart Alcohol sensor
8.	Dhomase Madhuri Ganpat	Cell Phone Detector And Jammer Circuit

2017-18

Sr.No.	Name of The students	Project title
1.	Aher Dinesh Nandu	Solar powered automatic plant irrigation system using microcontroller
2.	Dhamane Minal Bharat	Earthquake Indicator using Arduino
3.	Gadakh Divya Rajesh	Water Level Controller Using Arduino
4.	Jadhav Ujwala Dnyaneshwar	Voice Controlled Home Automation Using Arduino
5.	Jagdale Nitin Nanasaheb	Electronic Notice Board Using Bluetooth nad Arduino
6.	Kadale Akshara Pandharinath	Line Follower Robot Using Microcontroller
7.	Purkar Sonal Raosaheb	Foot Step Power Genaration Using Pizoelectric Sensors

8.	Shinde Akshay Somnath	Blood group detection
9.	Shirsath Pratiksha Kailas	Digital IC Tester For 74XX Series Using Microcontroller
10.	Watpade Akshay Sanjay	Obstacle Avoiding Robot Using Arduino

2018-19

Sr.No.	Name of The students	Project title
1.	Aher Tushar Dattatray	Food quality detection using Microcontroller 8051
2.	Borgude Kamlesh Bhimrao	GSM Based Fire Alarm System Using Arduino.
3.	Divate Ashwini Namdev	Warning system over-height vehicle
4.	Jadhav Prajakta Nandu	Ultrasonic blind walking stick using arduino
5.	Jadhav Purroshattam B.	Smart wheather station using Arduino
6.	Jadhav Rutuja Dnyaneshwar	Wireless display using aurdino
7.	Jadhav Swapnil Babu	Advanced digital ic tester for 74xx series using microcontroller
8.	Janorkar Priyanka Dattatraya	Interfacing Board of 8051
9.	Joshi Dnyaneshwari Suresh	Interfacing Board of 8051
10.	Sonawane Eknath Pandit	Automatic car wiper system
11.	Suryawanshi Mayur Keshav	Air pollution monitoring System using aurdino
12.	Thete Pooja Vilas	Lc meter using arduino
13.	Thete Ranjit Bharat	Magnetic field measurement using arduino

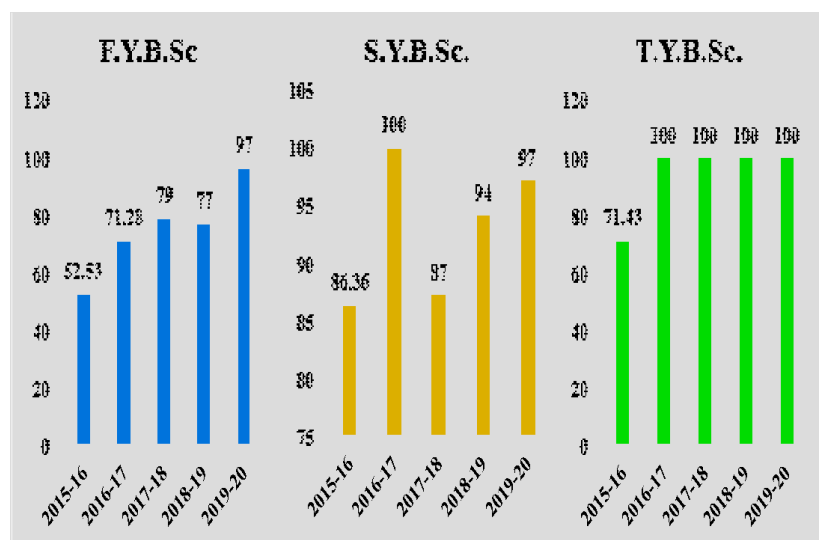
2019-20

Sr. No.	Name of The students	Project title
1	AherAbhishekDadasaheb	Advanced electronic component tester and digital frequency meter using microcontroller.
2	Bachhav Anil Ajay	Automatic room lighting system using microcontroller 8051.
3	BadwarNirajRajendra	Machine overheat detection and automatic cooling system using microcontroller 8051.
4	DeoreNilimaDattatray	Fire detector voice control robotics car.
5	DhomseShubhangiPratap	Heart rate monitoring using 8051 microcontrollers.
6	DhumalShubhamTanaji	RFID based key management system.
7	DivateShraddhaNamdev	Equipment controller using MATLAB based on GUI.
8	GawaliSiddhikaJagannath	Wireless control of robotics car through MATLAB GUI.
9	JadhavNishant Sanjay	Automatic irrigation system using ARDUINO
10	JamdhadeShivaniLaxman	Line follower robot using microcontroller.
11	JogdandTanuja Anil	8051 microcontroller based weather monitoring system with GSM
12	Lokhande Mahesh Suryabhan	Voting machine using microcontroller 8051.
13	NavaleAkshayUttam	Floor cleaning Robot using microcontroller 8051.
14	NiphadeSantoshBhagwan	Water pump controller for agricultural using GSM.
15	PagarSuvarnaBalnath	Digital clock with time and Alarm functions.
16	PatilSanket Sanjay	RFID based smart shopping Trolley using microcontroller.
17	PawarAishwaryaSahebrao	Android controller robot using microcontroller 8051.
18	PurkarJayshriSahebrao	Dual Axis sun tracking solar panel.
19	SayyedSaifaliAsifali	Interfacing of Board using 8051 microcontroller.
20	ShankhapalNavnathKrushnrao	Interfacing Board of 8051.
21	ShindeSamruddhiManik	Remote controlled metal detector robotics.

22	VaishyaUjalaKamleshkumar	Speed checker for Highway.
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Result summary

Sr. No	Year	Class	No of students	Year Result %	No of Students appeared for exam	No of Distinction	No of I st class	No of II nd class
5	2016-17	F.Y.B.Sc.	96	71.28	94	20	23	24
		S.Y.B.Sc.	52	100.0	51	23	21	07
		T.Y.B.Sc.	08	100.0	08	05	02	01
6	2017-18	F.Y.B.Sc.	80	79.14	68	23	17	11
		S.Y.B.Sc.	55	87.27	55	37	06	05
		T.Y.B.Sc.	10	100	10	07	03	00
7	2018-19	F.Y.B.Sc.	88	77.3	85	12	21	31
		S.Y.B.Sc.	37	94.2	37	30	05	00
		T.Y.B.Sc.	13	100	13	10	03	00
8	2019-20	F.Y.B.Sc.	62	96.72	61	23	21	15
		S.Y.B.Sc.	36	97.22	36	15	09	11
		T.Y.B.Sc.	22	100	22	20	02	00



List of the NET/ SET Qualified Students

Sr.No.	Name of Student	Exam Qualified
1	Kadlag Dhanajay Navnath	SET, NET
2	Jadhav Jayesh Suresh	NET
3	Pardeshi Onkar Madansingh	SET
4	Pardeshi Bhushan Subhashsing	SET
5	Pagar Bapu Ratan	SET
6	Watpade Sagar Shantaram	SET
7	Agale Nilesh Uttam	SET,NET
8	Nikam Priyanka Baban	SET
9	Jagtap Vishal Devidas	SET
10	Hawale Chhaya Tryambak	SET

Students Placement

Sr.No.	Name	Qualification	Placement
1	Kadlag Dhanajay Navnath	M.Sc. SET, NET	Asst. Prof., KTHM College
2	Pardeshi Bhushan Subhashsing	M.Sc. SET,	Asst. Prof., KNMAS College
3	Nikam Priyanka Baban	M.Sc. SET	Asst. Prof., KKW College
4	Hawale Chhaya Trumbak	M.Sc.	Asst. Prof., KNMAS College
5	Pardeshi Onkar Madansingh	M.Sc. SET,	Asst. Prof., KKHA College
6	Jadhav Jayesh Suresh	M.Sc. SET	Asst. Prof., KPG College
7	Jagtap Rani Deoram	M.Sc.	Asst. Prof., KKW College
8	Watpade Sagar Shantaram	M.Sc. SET,	Asst. Professor, KTHM College
9	Agale Nilesh Uttam	M.Sc. SET,	RENU Electronics Pvt. Ltd.

10	Ushir Mayur Sakahhari	M.Sc.	Asst. Prof.,KKW Nasik College
11	Pund Megah Balkrishna	M.Sc.	Digital Marketing & Social Media Services(Nashik)
12	Deshmukh Vishwas Dagdu	B.Sc.	Abiraj ExportsNashik
13	Jagtap Vishal Devidas	M.Sc. SET	HAL College Ozar, Nashik
14	Aher Shital	M.Sc.	SASKEN Pune.
15	Shinde Sanket	M.Sc.	Intel Bengaluru
16	Watpade Sandip	M.Sc	Rushabh Instruments
17	Patil Priti	M.Sc.	Arms security forces
18	Thete Tejashree Chandrakant	M.Sc.	Asst. Professor LVH College Nashik

Research Publications of the Department

International / National	Conference	Peer reviewed Journal	International Journal
International	01	04	07
National	01	-	-

MOU with Renuka Instruments

RENUKA INSTRUMENTS

R.H.N.17 OM Shivshakti Housing Society, Siddheshwar Nagar,
Dasak, Jail Road, Nashik Road, Nashik - 422101, Maharashtra



1. This MOU is Prepared between the two organization under the aegis of industry Institute partnership Cell.
2. This MOU is between Department of Electronic science K.K.W. College, Pimpalgaon(B), Tal. Niphad, Dist. Nashik. and Renuka Instruments, Nashik [www.renukainstruments.com, Mob. No. 9822297843]
3. As Per MOU, Renuka Instruments, Nashik will help to K.K.W. College, Pimpalgaon (B), Tal. Niphad, Dist. Nashik by granting permission for
 - i) Industrial visit of students / Staff
 - ii) Workshop training, Guidance in instrumentation.
 - iii) Guest lecturers as per expertise available in Industry.
4. Department of Electronic science, K.K.W. College, Pimpalgaon (B), Tal. Niphad, Dist. Nashik Will help to Renuka Instruments, Nashik by providing
 - i) Help in arranging seminar, workshop in college premises.
 - ii) Help in mutually training sessions on different subjects related to instrumentation for Renuka Instruments and College students/staff.
5. Any conflict between the two parties shall be mutually resolved. The decision about the conflict shall be binding to both the parties.
6. This MOU is valid for the tenure of one year from the date of signing and may be continued by the consent of both the parties.

Place: Nashik

Date: 17-07-2017

Signed by



Minor Research Projects

Name of the Faculty	Duration	Title of the project	Name of funding agency	Total grant		Status of the project
				Sanctioned Rs.	Received Rs.	
Prof. B. K. Aher	2013-15	“Synthesis and studies of ZnO/SnO ₂ and their composites, prepared by hydrothermal and Spray Pyrolysis technique for gas sensing	UGC, WRO, Pune	1,90000	1,50000	Completed
Prof. B. N. Kadlag	2015-17	Plant Disease Detection using Image Processing with MATLAB	BCUDS PPU, Pune	1,20000	95000	Completed
Prof. D.B. Patil	2015-16	Design & development of e-CALLISTO using Log Periodic Dipole Antenna for Solar Burst 80 to 870 MHz	Self Fancied	-	-	Completed As a M.Phil Project

Alumni Activity

Mr. Sagar Bhalerao, D.Sc. (Tech) at Tampere University of Technology Finland delivered lecture on Printed IoT.





Society for Promotion of Excellence in Electronics Discipline (**SPEED**)

Reg. No.: Maha.2683/2010/PUNE dated 30/12/2010

www.excellentspeed.org

SPEED (Society for Promotion of Excellence in Electronics Discipline) Dr. A. D. Shaligram, Dean Science Technology & HOD, Dept. of Electronic Science, Savitribai Phule Pune University, came forward with the idea of establishing such a society in year 2009. Later the concerned issues were discussed with faculty from the affiliated colleges. First meeting of the teachers was held in the A. V. Hall of Abasaheb Garware College, Pune in 2011. Dr. P. B. Buchade, HOD, Dept. of Electronic Science, Abasaheb Garware College, Pune and Dr. N.M. Kulkarni, Associate Professor, Dept. of Electronic Science, Fergusson college, Pune were the founder members of this society along with Dr. A. D. Shaligram. This society was registered under registration act 1860 R. No. Maha. 2683/2010/PUNE on 30/12/2010. The fundamental aim of the Association is to exchange information, knowledge and expertise among members of the association. The organization will be non profit making and working on voluntarily basis. It shall in particular, be capable of organizing competitions, symposia, workshops and conferences, collaborating with other international bodies with which it has common interests, finding the necessary financial resources, encouraging the introduction of advanced techniques, promoting educational and industrial collaboration, undertaking all other activities relevant to the object of the Association. Society for Promotion of Excellence in

Electronics Discipline (SPEED) is a legal registered Association for this purpose. The details of the association are available on the website <http://www.excellentspeed.org>

Several activities are being conducted by this association. The major activity is the SPEED Competitive Examinations conducted at all affiliated colleges. The question paper includes 50 MCQ type questions based on basics of Electronics. The question paper is provided online to the colleges and the answer papers are assessed by the members authorized by the governing body. The merit list is declared along with the list of students succeeding in the examination. The meritorious students are felicitated with awards during annual meet of the association.

In recent years the teachers of this college have participated in the meetings of the society as member of the association and also have conducted the SPEED competitive examinations at the college. The details of participation are given in the table below.

Summary of the students participated in SPEED examination

Sr.No.	Year	No. of Students
1	2017-18	138
2	2018-19	96
3	2019-20	102

SPEED Examination

2017-18



2018-19



Instruments and Equipments

Instruments	Description in detail	Year	Company	Qty
Breadboard	Without PS	2012-13		02
	Proto board- PB203A	2015-16	Aplab	14
DC power supply	Fixed PS +5V, 0502	2011-12	Aplab	04
	Fixed PS +5V, 0505	2012-13		02
	Fixed PS +15V, 1502	2015-16		09
	Variable Single PS 0-32V, L3202	2011-12	Aplab	06
		2012-13		
	Variable Dual PS 0-32V, LD3202	2014-15		11
Dimmerstat	15A, 15-P-1 type	2012-13	Varivolt	03
DMM	DT830D	2011-12	UNIT	01
	DX6101, 3 & ½ digit	2012-13	Dynaxact	05
	830L	2014-15	HTC	02
		2016-17		02
	DT830D	2016-17	UNIT	03
	DMM-63	2016-17	Meco	02
	MAS830L		hbTech	03
			MASTECH	01
	Auto manual ranging, M21C	2016-17	Motwane	04
	DM-81, BNK project	2015-16	HTC	04
	KM306, LCR meter	2016-17	KUSAM	01
LCR meter	Dx6200	2012-13	Dynaxact	05
Tachometer	DX6302	2012-13	Dynaxact	01
Frequency Counter	1.3 GHz Frequency Counter 1122	2012-13	Aplab	02
Function Generator	1MHz, Model MSG1M	2012-13		04
		2014-15		04
	2MHz, Model MSG2M	2015-16		03

Kit - Communication	FSK Modulator & demodulator	2016-17	Futurechip	02
	PAM, PPM, PWM			02
	Amplitude Modulator and Demodulator			02
	Hamming Code generator and detector circuit and correction			02
	FSK modulator and demodulator using XR 2206 and XR2211			02
Kit - Digital	4 bit sequence generator	2015-16	Sciencetech	02
	Decimal to BCD encoder			02
Kit - Microcontroller	89S51/89S52 Target board with inbuilt USB programmer			02
Kit - OFC	ST2501 Optical Fiber communication	2015-16	Sciencetech	02
Oscilloscope	25MHz color Digital Storage Oscilloscope 36025D	2009-10	Aplab	01
	20 MHz Dual trace Oscilloscope 3702	2011-12		02
		2012-13		02
	30 MHz Dual trace Oscilloscope 3706C	2015-16		05
		2016-17		02
	5 in 1 Test lab 3744, 1MHz	2012-13		01
	30 MHz color Digital Storage	2019-20		02

Achievements of the Faculty

- Dr. S. A. Wankhede qualified SET examination in Electronic Science held on 16/04/2017.
- Mrs. P. B. Nikam qualified SET examination in Electronic Science held on 28/01/2018.
- Dr. S. A. Wankhede received “Best e-content creator award” in science faculty by SPPU, Pune, on 17th March 2022.
- Dr. S. A. Wankhede Completed Ph.D. on 23-08-2023, Research Topic: “Development of Wireless Sensor Network system to monitor grapes parameters of cold storage with IoT and study of quality of grapes using dielectric parameters”.

Future Plans

- Develop system of renewable energy source for laboratories
- Development of e-learning /e-contents for Undergraduate students.
- To register Ph.D. of the teachers.
- More proposals for minor research projects.
- Increased number of research publications in reputed Journals.
- To start the PG. M.Sc. Electronic Science.

