

J.D.M.V.P. Samaj's, Shri. S. S. Patil Art's, Shri. Bhausaheb T. T. Salunkhe Commerce and Shri. G. R. Pandit Science College, (Nutan Maratha College), Jalgaon.



# ELECTRONICS DEPARTMENTAL PROFILE 2018-2023

#### **Mission**

To provide higher education in Electronics to the youths of the country with basic knowledge of Electronics and endow skilled experts to the industry and society.

## **Objectives of the Department**

- To motivate students for making carrier in Electronics.
- To make them confidant of using instruments in the Electronics Laboratory.
- To demonstrate the use of Active & Passive electronic components.
- To teach designing of different electronic circuits and verify practically in the laboratory.
- To learn about the Radio and Television communication technology.
- To train student in writing Assembly Language Programming.
- To study about the numerical methods and their applications in the Electronic circuits.
- To make aware about microcontroller programming and it's applications in electronics.
- To acquaint with the principle and operation of modern home appliances.
- To teach electronic power controls used in industries.
- To make aware about the use of different software tools.
- To develop research attitude by giving electronic projects

## **DEPARTMENT OF ELECTRONICS**

The department of electronics was established in 1985. Since the inception of the department it has strived to achieve academic excellence through quality teaching, participative learning and technical skill enhancement in frontier domains of Electronic Science. The department offers UG (Aided), As a result of department's commitment towards holistic development of the students; the graduates passing from the department have strong technical and theoretical foundation and are competent enough to survive in the competitive

environment. The department has well experienced and dedicated faculty members have aims to impart sound knowledge and awareness in the latest developments in the field of Electronics Science. The Department emphasizes on experiential learning through various innovative methodologies which include seminars, workshops, exhibitions, and projects for the holistic development of the students. The department has well equipped laboratory and received recognition from KBC NMU as Research Center.

## Highlights of the Department:

- ► Courses from Under Graduation
- ► Highly Qualified Staff.
- ► Research Activities.
- ► Good Infrastructure
- ► Recognized Research Center of Electronics by KBC NMU Jalgaon
- ► Well Equipped Laboratories
- ▶ Personal attention and counseling for students
- ▶ Opportunity for the students to conduct projects in department laboratory
- ► Laboratories with LCD Projector

## 2. Details of the Programmes Offered by the Department

| Sr<br>No | Program level         | Name of the program   | Duration | Entry<br>Qualificati | Medium of<br>Instruction |
|----------|-----------------------|---|----------|----------------------|--------------------------|
| 140      |                       |   |          | on                   |                          |
| 1        | UG                    | B Sc Electronics  | 03 Years | HSC                  | English                  |
| 2        | Certificate<br>Course | Laboratory Electronic Instruments Repairing and Maintenance   | 01 Year  | HSC                  | English                  |
| 3        | Ph. D. (Electronics)  | Research in thin film, , Nano Materials, synthesis Semiconductor sensitized solar cell, Nano sensors, Chemical bath deposition and Spin Coating | 03 Years | M Sc<br>Electronics  | English                  |

## 3. Departmental Staff:

| Post                | Sanctioned and filled   |
|---------------------|-------------------------|
| Professor           | 01 ( upto 31 June 2020) |
| Associate Professor | 02 ( upto 1 Dec 2022)   |
| Assistant Professor | 01                      |
| СНВ                 | 01                      |
| Contractual         | 00                      |

## Name and Information of the Teachers of Electronic Department:

| Sr. | Name of the     | Qualification | Designation | Mobile No &           | Research    | Date of       |
|-----|-----------------|---------------|-------------|-----------------------|-------------|---------------|
| No  | Teacher         |               |             | Email                 | Experience  | Appointment   |
|     |                 |               |             |                       |             | and           |
|     |                 |               |             |                       |             | Experience    |
|     |                 |               |             |                       |             | UG to PG      |
| 1   | Dr              | M Sc,         | Professor   | 890253180             | Three       | UG: 34 Years, |
|     | B.K.Sonawane    | M Phil, PhD   |             | bk_sonawane           | Students    | PG: 25 years  |
|     | ( up to 2021)   |               |             | @                     | awarded     |               |
|     |                 |               |             | rediffmail.com        | PhD         |               |
| 2   | Dr              | M Sc,         | Associated  | 9423573910            |             | UG: 33 Years, |
|     | S.A.Gaikwad     | M Phil, PhD   | Professor   | sagaikwad3@           |             | PG: 25 years  |
|     | ( upto 2022 )   |               |             | gmail.com             |             |               |
|     |                 |               |             |                       |             |               |
| 3   | Mr.P.R.Deore    | M Sc,         | Associated  | ••••                  |             | 24/08/1988    |
|     | (upto31/5/2020) |               | Professor   |                       |             | UG:33 Years   |
| 4   | Dr.K.B. Patil   | M Sc,         | Assistant   | 9325575836            | 02 Students | 12/09/1992    |
|     | (Head of the    | PhD           | Professor   | Email-                | pursuing    | UG: 32 Years, |
|     | Department)     |               |             | <u>kbpatil1531969</u> | PhD         | PG: 02 years  |
|     |                 |               |             | @gmail.com            |             |               |
| 5   | Dr.Rahul        | M Sc,         | Assistant   | 7972798539            |             | LIC: 2 Voors  |
|     | Salunkhe        | PhD           | Professor   | rippusalunke@         |             | UG: 3 Years,  |
|     |                 |               | (CHB)       | gmail.com             |             |               |

## Faculty on Academic Bodies of University:

#### Prof.Dr B.K.Sonawane (Professor)

❖ Member : Member Board of Studies in Electronics

Coordinator : Online Examination of University

❖ Chairman : For PhD Viva-voce

♦ Member : Subject Expert for PhD Pre-submission Presentation

♦ Member: Subject Expert for appointment of Assistant Professor.

Member : External/Internal PhD Referee

#### Dr S.A.Gaikwad (Associated Professor)

Senior Supervisor of University Examination

Member : Paper Setting of University Examination

Chairman: LIC Committee

♦ Member : Member Board of Studies in Electronics

#### Dr. K.B. Patil (Assistant Professor)

#### (Head Department of Electronics & PG Coordinator)

♦ Member : Paper Setting of University Examination

**❖** Member : COCC Committee

Assistant Program Officer NSS

Senior Supervisor of University Examination

❖ Chairman: TYB Sc Electronics Practical University Examination

#### Dr.Rahul Salunkhe (Assistant Professor) CHB

Junior Supervisor of University Examination

❖ Internal and external examiner Practical examination

## Meritorious Students:

## T. Y. B. Sc. (Electronics)

| Sr | Name of the student           | Year    | CGPA/ Percentage | Rank                 |
|----|-------------------------------|---------|------------------|----------------------|
| No |                               |         | of Marks         |                      |
| 1  | Patil Sagar Shivaji           | 2018-19 | 78.16%           | First in the College |
| 2  | Temkar Vishal Abhimanyu       | 2019-20 | 81.29%           | First in the College |
| 3  | Baviskar Minakshi Bhalchandra | 2020-21 | 94.89%           | First in the College |
| 4  | Borase Rohit Yuvaraj          | 2021-22 | 85.42%           | First in the College |
| 5  | Birpan Mahesh Rohidas         | 2022-23 | 80.92%           | First in the College |

# Result data of the assessment period:

|    |         |          | T Y B Sc |         |
|----|---------|----------|----------|---------|
| Sr | Year    | Appeared | Pass     | Pass %  |
| No |         |          |          |         |
| 1  | 2018-19 | 07       | 03       | 42.85%  |
| 2  | 2019-20 | 07       | 06       | 85.71 % |
| 3  | 2020-21 | 08       | 08       | 100 %   |
| 4  | 2021-22 | 09       | 09       | 100 %   |
| 5  | 2022-23 | 07       | 02       | 28.57%  |

## NET/SET/Govt. Exam and Other Examination

Qualified by Students: Nil

| Sr No | Year of Passing | Seat No | Name of the Student | NET/SET/   |
|-------|-----------------|---------|---------------------|------------|
|       |                 |         |                     | Govt. Exam |
| 1     |                 |         |                     |            |
| 2     |                 |         |                     |            |
| 3     |                 |         |                     |            |
| 4     |                 |         |                     |            |

## Placement of Students:

| Sr | Name of student                           | Program | Name of Employer  | Pay package<br>At appointment |
|----|---|---------|---|-------------------------------|
| No |   |         |   | (In INR per annum)            |
| 1  | Sonawane Jayesh Sanjay<br>(2021-22)       | B.Sc    | Self Officer HDFC (Nasik)<br>bank Andhedri west Mumbai                          | 25,000 (Monthly)              |
| 2  | Lohar Diraj Sanjay<br>(2020-21)           | B.Sc    | Soft Engineer Pune  | 600,000                       |
| 3  | Patil Umesh Naval<br>(2020-21)            | B.Sc    | Hardware Engineer Pune  | 260,000                       |
| 4  | Borse Rohit Yuvaraj<br>(2021-22)          | B.Sc    | Tech Assistant M.electroncs<br>M IDC Jalgaon                                    | 12,500 (Monthly)              |
| 5  | Koli Harshal Ishwar<br>(2021-22)          | B Sc    | Orange Business Service<br>Indian Pvt.Limited<br>Mumbai                         | 25,000 (Monthly)              |
| 6  | Rathod Rajendra<br>Machindra<br>(2021-22) | B.Sc    | Business Manisha Stationary,<br>Online (Setu) Pawangaon<br>,Kalyan              | 25,000 (Monthly)              |
| 7  | Birade Devendra Adhar<br>(2021-22)        | B.Sc    | Trade man, BSF Posting at<br>Datiwala Gujarath                                  | 21,000<br>(Basic Monthly))    |
| 8  | More Rahul Tukaram<br>(2019-20)           | B.Sc    | Technician ,Tata Hospital<br>Mumbai   | 35,000 (Monthly)              |
| 9  | Temkar Vishal Abhimanyu (2019-20)         | B.Sc    | Technician Invotech ,Pune   | 15,000 (Monthly)              |
| 10 | Birpan Mahesh Rohidas (2022-23)           | B.Sc    | Computer Operator,Enkai<br>wheel Industry India<br>Pvt.limited Shikrapure ,Pune | 22,000 (Monthly)              |

## List the distinguished alumni of the department:

| Sr No | Name of the Alumni       | Present post held                       |
|-------|--------------------------|---|
| 1     | Ms. Manisha K Sonawane   | Associate Prof                          |
|       |                          | Vasantrao Naik College, Aurangabad      |
| 2     | Dr.Suresh W.Gosavi       | Vice Chancellor                         |
|       |                          | Savitribai Phule Pune University (SPPU) |
| 3     | Dr.Chaudhari K. S        | Associate Prof                          |
|       |                          | A. S. C. College, Dondaicha             |
| 4     | Mr. Naik Ravindra V.     | Social Worker, Jalgaon                  |
| 5     | Mr.Jadhav R.V.           | JTO ,BSNL Telephone Pune                |
| 6     | Dr.Patil Kailas B.       | Assistant. Prof.                        |
|       |                          | J.D.M.V.P.Samaj's A.S.C.College Jalgaon |
| 7     | Mr.Patil Anil B.         | Assistant. Prof.                        |
|       |                          | M. S. G. college, Malegaon              |
| 8     | Mr.Patil Prashant Ramesh | Central Jail, Nasik (Jailor)            |
| 9     | Mr.Dunakhe Sachin        | Business Computer Corner, Jalgaon       |
| 10    | Mr.Kundan Dhande         | Electronic Engineer                     |
|       |                          | Rishabh Instruments Pvt. Ltd. Nashik    |
| 11    | Mr.S.R.Patil             | Lecturer                                |
|       |                          | MCVC JR College Varangaon               |
| 12    | Mr. P.S. Patil           | Lecturer                                |
|       |                          | Mahatma Gandhi Vidyalaya, Varangaon,    |

# List of Ph D students in the department:

|    | Dr B.K.Sonawane<br>(Research Guide)         |        |  |                      |  |  |
|----|---|--------|--|----------------------|--|--|
| Sr | Name of the                                 | PhD/   | Title of the Thesis  | Status               |  |  |
| No |   | M Phil |  |                      |  |  |
| 1  | Mr.Patil Kailas Bhalerao<br>DOR: 06-05-2013 | Ph.D.  | Growth and characterization of doped Bismuth tri-sulphide crystals by Gel method           | Awarded 23-12-2021   |  |  |
| 2  | Ms. Tahira A. H. Mir<br>DOR: 22-02-2013     | Ph.D   | Investigation of optical and electrical properties of ZnSe doped compounds for solar cells | Awarded<br>July 2022 |  |  |
| 3  | Mr.Sonawane Anil Uttam<br>DOR: 22-02-2015   | Ph.D   | Synthesis and characterization of<br>Chalcogen- doped ZnO film for<br>optical applications | Awarded 6-11-2023    |  |  |

|   | Dr K.B. Patil<br>(Research Guide)            |      |  |         |  |
|---|--|------|--|---------|--|
| 1 | Ms. Patil Rupali Mahendra<br>DOR: 14-10-2022 | Ph.D | Synthesis and Characterization of pure and doped Manganese sulfide (MnS) Thin film | Ongoing |  |
| 2 | Mr.Teli Vishal Ishwar                        | Ph.D | Under Process  | Ongoing |  |

Research projects by faculty: Nil

| Sr No | Name of faculty | Title of research | Funding agency | Status |
|-------|-----------------|-------------------|----------------|--------|
|       |                 | project           |                |        |
| 1     |                 |                   |                |        |
| 2     |                 |                   |                |        |
|       |                 |                   |                |        |

## Publications by Faculty:

| Sr No | Name of the faculty | Publication in peer reviewed Journal | Publication in peer<br>reviewed Journal<br>(International) | Books/ Book<br>Chapters |
|-------|---------------------|--------------------------------------|--|-------------------------|
|       |                     | (National)                           |  |                         |
| 1     | Dr B.K.Sonawane     | •••                                  | 16   | ••••                    |
| 2     | Dr S.A.Gaikwad      | 04                                   | 04   | •••                     |
| 3     | Dr K.B. Patil       |                                      | 19   | ••••                    |
| 4     | Dr.Rahul Salunkhe   |                                      |  | ••••                    |

# Seminars/Conferences/Workshops/RC/OC/FDP attended:

|    | Name of Faculty   | Seminar     | Seminar    | Seminar         | RC/OC/FDP |
|----|-------------------|-------------|------------|-----------------|-----------|
| Sr |                   | conference  | conference | conference      |           |
| No |                   | Workshop    | Workshop   | Workshop        |           |
|    |                   | (State/Uni) | (National) | (International) |           |
| 1  | Dr B.K.Sonawane   | 04          | 03         | 04              |           |
| 2  | Dr S.A.Gaikwad    |             |            |                 |           |
| 2  | Dr K.B. Patil     | 03          | 15         | 08              | FDP = 11  |
| 4  | Dr.Rahul Salunkhe |             |            |                 |           |

## Event / Programmes Workshops / Seminars Organize By Department :

❖ Workshop on Syllabus Reconstructing at F Y BSc Electronics (CBCS)
 29 th April 2022

## Infrastructure of the Department: Physical Facilities:

| Sr No | Room/ Laboratory    | Dimension | <b>Utilization for</b>  |
|-------|---------------------|-----------|-------------------------|
|       |                     | (Feet )   |                         |
| 1     | Lab. I              | 20X 30    | S Y and TY Practical's  |
| 2     | Lab. II             | 15 X 30   | FY Practical's & Junior |
| 3     | Lab. III (Research) | 10 x 20   | (Research)              |

## Departmental Library Facilities:

| Sr No | Books | Journals | Thesis |
|-------|-------|----------|--------|
| 1     | 101   | 00       | 02     |

## Computers and other peripherals:

| Sr No | Item          | Description | Number |
|-------|---------------|-------------|--------|
| 1     | Computer      | P4 & P3     | 15     |
| 2     | Printer       | Canon       | 01     |
| 3     | Printer       | H P         | 01     |
| 4     | LCD Projector |             | 01     |

## **Special facilities of the Department:**

1. Recognized Research Center of KBC NMU Jalgaon for UG/ PG and Research Student

Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department:

## **Strengths:**

- Well experienced and qualified staff
- Department with Recognized Research center
- Friendly interaction of teachers with the students
- ❖ Very co-operative non teaching staff

#### Weakness:

- Lack of placement
- ❖ Constrain in Characterization facility for research

#### **Opportunities:**

- Teaching learning method can be improved with learning resources
- **❖** Ample scope for extending research projects

#### **Challenges:**

- ❖ To attract students by projecting opportunities in Electronics
- ❖ To set up well equipped research laboratory

#### **Future Plans:**

- ❖ To set up well equipped research laboratory with Characterization facility for research.
- ❖ To organize more co-curricular activities for the students
- ❖ To apply for research projects and funding for it