

**NATIONAL BOARD OF ACCREDITATION**  
**Data Capturing Points of the Program Applied for NBA Accreditation– Tier I/II UG**  
**(Engineering) Institute Programs**

**PART-A: Profile of the Institute**

**Name of the Program Applied for: B.E. Electronics & Communication**

**A1. Name of the Institute:** :L. D. College of Engineering, Ahmedabad

Year of Establishment :1948

Location of the Institute :Opp. Gujarat University

**A2. Institute Address:** :No.120, Circular Road, University Area, Opp. Gujarat  
University 380015

City :Ahmedabad

Pin Code :380015

Email :head\_chemical@ldce.ac.in

State :Gujarat

Website :www.ldce.ac.in

Phone No. :079-2636752

**A3. Name and Address of the Affiliating University:**

Name : Gujarat Technological University (GTU)

Sate : Gujarat

City : Ahmedabad

Pin Code :382424

Address : Gujarat Technological University, Nr. Vishwakarma Government  
Engineering College, Nr.Visat Three Roads, Visat - Gandhinagar Highway, Chandkheda

**A4. Type of the Institution:**

University



|                   |                                     |
|-------------------|-------------------------------------|
| Deemed University | <input type="checkbox"/>            |
| Government Aided  | <input type="checkbox"/>            |
| Autonomous        | <input type="checkbox"/>            |
| Affiliated        | <input checked="" type="checkbox"/> |

**A5. Ownership Status:**

|                            |                                     |
|----------------------------|-------------------------------------|
| Central Government         | <input type="checkbox"/>            |
| State Government           | <input checked="" type="checkbox"/> |
| Government Aided           | <input type="checkbox"/>            |
| Self – Financing           | <input type="checkbox"/>            |
| Trust                      | <input type="checkbox"/>            |
| Society                    | <input type="checkbox"/>            |
| Section 25 Company         | <input type="checkbox"/>            |
| Any Other (Please specify) | <input type="checkbox"/>            |

**A6. Details of all the programs being offered by the institution under consideration:**

- ❖ No. of UG programs: 16
- ❖ No. of PG programs: 19
- ❖ No. of working Professionals: 03

**Table No. A6.1:** List of all programs offered by the Institute.

| S.N. | Level of program (UG/PG) | Name of the program                          | Year of Start | Year of close* | Name of the Department                       |
|------|--------------------------|----------------------------------------------|---------------|----------------|----------------------------------------------|
| 1.   | UG                       | Artificial Intelligence and Machine Learning | 2022          |                | Artificial Intelligence and Machine Learning |
| 2.   | UG                       | Automobile Engineering (B.E.)                | 2004          |                | Department of Automobile Engineering         |
| 3.   | UG                       | Biomedical Engineering (B.E.)                | 2004          |                | Department of Biomedical Engineering         |
| 4.   | UG                       | Chemical Engineering (B.E.)                  | 1974          |                | Department of Chemical Engineering           |
| 5.   | UG                       | Civil Engineering (B.E.)                     | 1948          |                | Department of Civil Engineering              |

|     |    |                                                |      |  |                                                       |
|-----|----|------------------------------------------------|------|--|-------------------------------------------------------|
| 6.  | UG | Computer Engineering (B.E.)                    | 1983 |  | Department of Computer Engineering                    |
| 7.  | UG | Electrical Engineering (B.E.)                  | 1948 |  | Department of Electrical Engineering                  |
| 8.  | UG | Electronics & Communication Engineering (B.E.) | 1972 |  | Department of Electronics & Communication Engineering |
| 9.  | UG | Environment Engineering (B.E.)                 | 1983 |  | Department of Environment Engineering                 |
| 10. | UG | Information Technology (B.E.)                  | 2000 |  | Department of Information Technology                  |
| 11. | UG | Instrumentation & Control Engineering (B.E.)   | 1974 |  | Department of Instrumentation & Control Engineering   |
| 12. | UG | Mechanical Engineering (B.E.)                  | 1948 |  | Department of Mechanical Engineering                  |
| 13. | UG | Plastic Technology (B.E.)                      | 1983 |  | Department of Plastic Technology                      |
| 14. | UG | Robotics & Automation (B.E.)                   | 2022 |  | Department of Robotics & Automation                   |
| 15. | UG | Rubber Technology (B.E.)                       | 1983 |  | Department of Rubber Technology                       |
| 16. | UG | Textile Technology (B.E.)                      | 1977 |  | Department of Textile Technology                      |
| 17. | PG | Computer Aided Process Design (M.E.)           | 2002 |  | Department of Chemical Engineering                    |
| 18. | PG | Geotechnical Engineering (M.E.)                | 2011 |  | Department of Applied Mechanics                       |
| 19. | PG | Civil (Structural Engineering) (M.E)           | 1986 |  | Department of Applied Mechanics                       |

|     |    |                                                                         |      |  |                                                       |
|-----|----|-------------------------------------------------------------------------|------|--|-------------------------------------------------------|
| 20. | PG | Civil Engineering (Transportation Engineering) (M.E.)                   | 2001 |  | Department of Civil Engineering                       |
| 21. | PG | Civil (Water Resources & Engineering) (M.E.)                            | 1986 |  | Department of Civil Engineering                       |
| 22. | PG | Computer Engineering (Software Engineering) (M.E.)                      | 2009 |  | Department of Computer Engineering                    |
| 23. | PG | Electrical Engineering (M.E.)                                           | 1954 |  | Department of Electrical Engineering                  |
| 24. | PG | Electronics and Communication (Communication System Engineering) (M.E.) | 2001 |  | Department of Electronics & Communication Engineering |
| 25. | PG | Environmental Management (M.E.)                                         | 2001 |  | Department of Environment Engineering                 |
| 26. | PG | Information Technology (M.E.)                                           | 2010 |  | Department of Information Technology                  |
| 27. | PG | Applied Instrumentation (M.E.)                                          | 2003 |  | Department of Instrumentation & Control Engineering   |
| 28. | PG | Computer Aided Design & Manufacturing (M.E.)                            | 1996 |  | Department of Mechanical Engineering                  |
| 29. | PG | Cryogenic Engineering (M.E.)                                            | 1990 |  | Department of Mechanical Engineering                  |
| 30. | PG | Mechanical (Internal Combustion Engines & Automobile) (M.E.)            | 2003 |  | Department of Mechanical Engineering                  |
| 31. | PG | Rubber Technology (M.E.)                                                | 2011 |  | Department of Rubber Technology                       |
| 32. | PG | Textile Engineering (M.E.)                                              | 2010 |  | Department of Textile Technology                      |
| 33. | PG | VLSI Design (M.E.)                                                      | 2021 |  | Department of Electronics & Communication Engineering |

|     |    |                                         |      |  |                                      |
|-----|----|-----------------------------------------|------|--|--------------------------------------|
| 34. | PG | Electric Vehicle Technology (M.E.)      | 2023 |  | Department of Electrical Engineering |
| 35. | PG | Masters in Computer Application (M.C.A) | 1987 |  | Department of Information Technology |

**Working Professionals Courses:**

|   |    |                               |      |  |                                      |
|---|----|-------------------------------|------|--|--------------------------------------|
| 1 | UG | Civil Engineering (B.E.)      | 2024 |  | Department of Civil Engineering      |
| 2 | UG | Electrical Engineering (B.E.) | 2024 |  | Department of Electrical Engineering |
| 3 | UG | Mechanical Engineering (B.E.) | 2024 |  | Department of Mechanical Engineering |

**A7. Programs to be considered for Accreditation vide this application:**

*Table No. A7.1: List of programs to be considered for accreditation.*

| Sr. No. | Program Name                                      |
|---------|---------------------------------------------------|
| 1       | B.E. in Mechanical Engineering                    |
| 2       | B.E. in Electronics and Communication Engineering |
| 3       | B. E in Environment Engineering                   |
| 4       | B.E in Rubber Technology                          |

*Table No. A7.2: Allied Department(s) to the Department of the program considered for accreditation as above.*

| Cluster ID.                                      | Name of the Department (in table no. A7.1) | Name of allied Departments/Cluster (for table no. A7.1) |
|--------------------------------------------------|--------------------------------------------|---------------------------------------------------------|
| <b>Electronics and Communication Engineering</b> | Electronics and Communication Engineering  | Instrumentation & Control Engineering                   |
|                                                  | Electronics and Communication Engineering  | Biomedical Engineering                                  |

**PART-B: Program information**

(Data to be filled in for the program applied for Accreditation)

**B1: Provide the Required Information for the Program Applied For: - B.E.Electronics & Communication Engineering**

*Table No. B1: Program details.*

| N . | Program Name                            | Year of start | Sanctioned Intake | Increase/ decrease in intake , if any | Year of increase/ decrease | AICTE Approval Details                             | Accreditation Status*                                       | No. of times program accredited |
|-----|-----------------------------------------|---------------|-------------------|---------------------------------------|----------------------------|----------------------------------------------------|-------------------------------------------------------------|---------------------------------|
| 1   | Electronics & Communication Engineering | 1972 / --     | 120               | No                                    | NA                         | F.No. Central/1-44642961216/2025/EOADt. 03/01/2025 | Granted accreditation for 3years for the period (2012-2015) | 2                               |

**B2: Detail of Head of the Department for the program under consideration:**

**A. Name of the HoD : Prof.S.B.Prajapati**

**B. Nature of appointment: (Tick the applicable choice)**

- ❖ Regular ☒
- ❖ Contract ☒
- ❖ Adhoc ☒

**C. Qualification: (Tick the applicable choice)**

- ❖ Ph.D. ☒
- ❖ ME/M.Tech ☒
- ❖ Any other ☒

### B3. Program Details

Table No. B3.1: Admission details for the program excluding those admitted through multiple entry and exit points

| Item (Information is to be provided cumulatively for all the shifts with explicit headings, wherever applicable)                                                                          | 2025-26<br>(CAY) | 2024-25<br>(CAYm1) | 2023-24<br>(CAYm2) | 2022-23<br>(CAYm3) | 2021-22<br>(CAYm4) | 2020-21<br>(CAYm5) | 2019-20<br>(CAYm6) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| N= Sanctioned intake of the program (as per AICTE/Competent authority)                                                                                                                    | 120              | 120                | 120                | 120                | 120                | 120                | 120                |
| N1= Total no. of students admitted in the 1 <sup>st</sup> year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program | 120              | 120                | 120                | 111                | 118                | 113                | 120                |
| N2= Number of students admitted in 2 <sup>nd</sup> year in the same batch via lateral entry including leftover seats                                                                      | 0                | 19                 | 37                 | 46                 | 41                 | 44                 | 30                 |
| N3= Separate division if any                                                                                                                                                              | 0                | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  |
| N4= Total no. of students admitted in the 1 <sup>st</sup> year via all supernumerary quotas                                                                                               | 20+9             | 33+4               | 8                  | 7                  | 11                 | 5                  | 14+7               |
| Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.                                                   | 149              | 176                | 165                | 164                | 170                | 162                | 171                |

CAY= Current Academic Year.  
 CAYm1= Current Academic Year Minus 1.  
 CAYm2= Current Academic Year Minus 2.  
 LYG= Last Year Graduate.  
 LYGm1= Last Year Graduate Minus 1.  
 LYGm2= Last Year Graduate Minus 2.

#### B4. Enrolment Ratio in the First Year

Table No.B4.1: Student enrolment ratio in the 1st year

| Item (Students enrolled in the First Year on average over 3 academic years (CAY, CAYm1, and CAYm2))                                                                           | 2025-26 (CAY) | 2024-25 (CAYm1) | 2023-24 (CAYm2) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|-----------------|
| N= Sanctioned intake of the program in the 1st year (as per AICTE/Competent authority)                                                                                        | 120           | 120             | 120             |
| N1= Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program | 120           | 120             | 120             |
| N4= Total no. of students admitted in the 1st year via all supernumerary quotas                                                                                               | 29            | 37              | 8               |
| Enrolment Ratio (ER)= (N1+N4)/N                                                                                                                                               | 124.16        | 130.8           | 106.6           |
| Average ER= (ER_1+ ER_2+ ER_3)/3                                                                                                                                              | 120.52        |                 |                 |

Average [ (ER1 + ER2 + ER3) / 3] = 120.52  $\equiv$  100

ER Points = 20 \* (Average ER/100) = 24.104

Assessment: 20.00

#### B5. Success Rate of the Students in the Stipulated Period of the Program (15)

Table No.B5.1: The success rate in the stipulated period of a program

| Item                                                                                                                                                                                                                     | (2021-22) LYG | (2020-21) LYGm1 | (2019-20) LYGm2 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|-----------------|
| A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if | 159           | 157             | 150             |

|                                                                                     |       |       |     |
|-------------------------------------------------------------------------------------|-------|-------|-----|
| applicable, minus the number of students who exited through multiple entry (if any) |       |       |     |
| B=No. of students who graduated from the program in the stipulated course duration  | 136   | 136   | 144 |
| Success Rate (SR)= (B/A) * 100                                                      | 85.53 | 86.62 | 96  |
| Average SR of three batches ((SR_1+SR_2+ SR_3)/3)                                   | 89.38 |       |     |

Average SR of three batches ((SR\_1+ SR\_2+ SR\_3)/3): 89.38

SR Points = 1.5 \* Average SR/10

SR Points: 13.41

## B6. Academic Performance of the First-Year Students of the Program

*Table No.B6.1: Academic Performance of the First-Year Students of the Program*

| Academic Performance                                                                                                                                                    | CAYm1<br>( 2024-25 ) | CAYm2<br>( 2023-24 ) | CAYm3<br>( 2022-23 ) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|----------------------|
| X= (Mean of 1st year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 1st year/10) | 7.32                 | 7.13                 | 7.35                 |
| Y=Total no. of successful students                                                                                                                                      | 156                  | 127                  | 113                  |
| Z=Total no. of students appeared in the examination                                                                                                                     | 156                  | 127                  | 115                  |
| API [X*(Y/Z)]                                                                                                                                                           | 7.32                 | 7.13                 | 7.22                 |
| Average API                                                                                                                                                             | 7.22                 |                      |                      |

Average API [ (AP1+AP2+AP3)/3]: 7.22

Assessment = Average API: 7.22

## B7. Academic Performance of the Second Year Students of the Program

*Table No.B7.1: Academic Performance of the Second-Year Students of the Program*

| Academic Performance | CAYm1 | CAYm2 | CAYm3 |
|----------------------|-------|-------|-------|
|----------------------|-------|-------|-------|

|                                                                                                                                                                         | ( 2024-25 ) | ( 2023-24 ) | ( 2022-23 ) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|
| X= (Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2nd year/10) | 7.29        | 7.03        | 7.05        |
| Y=Total no. of successful students                                                                                                                                      | 153         | 154         | 160         |
| Z=Total no. of students appeared in the examination                                                                                                                     | 160         | 157         | 160         |
| API [X*(Y/Z)]                                                                                                                                                           | 6.97        | 6.89        | 7.05        |
| Average API                                                                                                                                                             | 6.97        |             |             |

Average API [ (AP1+AP2+AP3)/3]: 6.97

Assessment = Average API: 6.97

### B8. Academic Performance of the Third Year Students of the Program

Table No.B8.1: Academic Performance of the Third-Year Students of the Program

| Academic Performance                                                                                                                                                   | CAYm1<br>( 2024-25 ) | CAYm2<br>( 2023-24 ) | CAYm3<br>( 2022-23 ) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|----------------------|
| X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10) | 7.82                 | 7.79                 | 7.72                 |
| Y=Total no. of successful students                                                                                                                                     | 148                  | 150                  | 156                  |
| Z=Total no. of students appeared in the examination                                                                                                                    | 156                  | 156                  | 160                  |
| API [X*(Y/Z)]                                                                                                                                                          | 7.41                 | 7.49                 | 7.5                  |
| Average API                                                                                                                                                            | 7.46                 |                      |                      |

Average API [ (AP1+AP2+AP3)/3]: 7.46

Assessment = Average API: 7.46

### B9. Placement, Higher Studies and Entrepreneurship

Table No. B9.1: Placement, higher studies, and entrepreneurship details

| Item | LYG | LYGm1(2020- | LYGm2(2019- |
|------|-----|-------------|-------------|
|------|-----|-------------|-------------|

|                                                | (2021-22) | 21)   | 20)   |
|------------------------------------------------|-----------|-------|-------|
| FS*=Total no. of final year students           | 156       | 158   | 160   |
| X=No. of students placed                       | 97        | 84    | 87    |
| Y=No. of students admitted to higher studies   | 08        | 17    | 15    |
| Z= No. of students taking up entrepreneurship  | 0         | 0     | 1     |
| X + Y + Z =                                    | 105       | 101   | 103   |
| Placement Index(P) = (((X + Y + Z)/FS) * 100): | 67.30     | 63.92 | 64.37 |
| Average placement index = (P_1 + P_2 + P_3)/3  | 65.19     |       |       |

## PART C: Faculty Details in Department and Allied Departments

### C1: Faculty details of Department and Allied Departments

**Table No.C1:** Faculty details in the Department for the past 3 years including CAY

| Sr. No. | Name of the Faculty      | Highest degree | University   | Area of Specialization | Date of joining this institution | Experience in years In current institute | Designation at the time joining in this institution | Present designation | Date on which Designated as Professor/Associate Professor | Nature of Association (Regular/Contract) | If contractual (Full time/ part time) | Currently Associated (Y/N) | Date of Leaving |
|---------|--------------------------|----------------|--------------|------------------------|----------------------------------|------------------------------------------|-----------------------------------------------------|---------------------|-----------------------------------------------------------|------------------------------------------|---------------------------------------|----------------------------|-----------------|
| 1       | Prof. C.H.Vithlani       | Ph.D.          | GU           | Ele. & Commu. Engg.    | 18/05/2022                       | 4.1                                      | Prof.                                               | Prof.               | 24/12/2015                                                | R                                        | --                                    | N                          | 31/12/2025      |
| 2       | Prof K G Vaghela         | M. TECH        | SVNIT, Surat | ELECTRONICS            | 20/01/2016                       | 10.5                                     | Asso                                                | Asso                | 20/01/2016                                                | R                                        | --                                    | Y                          | --              |
| 3       | Prof Sanjay B. Prajapati | Ph.D.          | IIT, Roorkee | VLSI DESIGN            | 15/07/2017                       | 8.11                                     | Asso                                                | Asso                | 15/07/2017                                                | R                                        | --                                    | Y                          | --              |
| 4       | Prof Pinky Brahmbhatt    | Ph.D.          | GTU          | CSE(Commu. Sys. Engg.) | 21/09/2012                       | 13.9                                     | Asso                                                | Asso                | 21/09/2012                                                | R                                        | --                                    | Y                          | --              |
| 5       | Prof P J                 | M.E.           | GU           | CSE                    | 12/10/2013                       | 12.8                                     | Asst                                                | Asst                | --                                                        | R                                        | --                                    | Y                          | --              |

|    |                       |        |                       |                             |            |         |      |      |    |   |    |   |    |
|----|-----------------------|--------|-----------------------|-----------------------------|------------|---------|------|------|----|---|----|---|----|
|    | Muliya                |        |                       |                             |            |         |      |      |    |   |    |   |    |
| 6  | Prof Madhusmita Sahoo | Ph.D.  | Indus University      | Antennas                    | 17/05/2011 | 15.1    | Asst | Asst | -- | R | -- | Y | -- |
| 7  | Prof A B Upadhyay     | Ph.D.  | Silver Oak Universtiy | Image Processing            | 27/05/2011 | 15.1    | Asst | Asst | -- | R | -- | Y | -- |
| 8  | Prof Sima Gonsai      | M.E.   | GU                    | CSE                         | 26/05/2011 | 15.1.4  | Asst | Asst | -- | R | -- | Y | -- |
| 9  | Prof Suresh Bharvad   | ME     | GTU                   | VLSI DESIGN                 | 07/01/2015 | 11.5.23 | Asst | Asst | -- | R | -- | Y | -- |
| 10 | Prof Nirali Kotak     | Ph.D.  | JJT University        | Wireless Communication      | 29/07/2017 | 8.11.1  | Asst | Asst | -- | R | -- | Y | -- |
| 11 | Prof Hardik B. Tank   | Ph.D.  | S P University        | EC                          | 6/12/2018  | 7.6.24  | Asst | Asst | -- | R | -- | Y | -- |
| 12 | Prof Dhaval N. Patel  | M.E.   | SSEC,Bhavnagar        | CSE                         | 6/12/2018  | 7.6.24  | Asst | Asst | -- | R | -- | Y | -- |
| 13 | Prof. Hitesh N. Desai | M.Tech | Ganpat University     | Electronics & Communication | 10/12/2020 | 5.6.20  | Asst | Asst | -- | R | -- | Y | -- |
| 14 | Prof. Ami B. Gandhi   | M.E.   | GTU                   | CSE                         | 27/12/2021 | 4.6.3   | Asst | Asst | -- | R | -- | Y | -- |
| 15 | Prof. Vijay Chavda    | M.E.   | GU                    | CSE                         | 1/11/2022  | 3.7.29  | Asst | Asst | -- | R | -- | Y | -- |

|    |                              |        |                   |                                   |            |        |      |      |            |   |    |   |           |
|----|------------------------------|--------|-------------------|-----------------------------------|------------|--------|------|------|------------|---|----|---|-----------|
| 16 | Prof. Reena K. Panchal       | M.E.   | LJ University     | CSE                               | 1/11/2022  | 3.7.29 | Asst | Asst | --         | R | -- | Y | --        |
| 17 | Prof. Ketan Lad              | M.E.   | GTU               | EC                                | 21/08/2023 | 2.10.9 | Asst | Asst | --         | R | -- | Y | --        |
| 18 | Prof. Bamniya Kishor Himsinh | M.TECH | Nirma University  | Wireless Communication            | 13/3/2024  | 2.3.17 | Asst | Asst | --         | R | -- | Y | --        |
| 19 | Prof. Sanjay M. Vaishnav     | M.E.   | GU                | CSE                               | 24/4/2025  | 1.2.6  | Asso | Asso | 24/04/2025 | R | -- | Y | --        |
| 20 | Prof. Avani A. Vithlani      | Ph.D.  | GTU               | Wireless Communication            | 24/4/2025  | 1.2.6  | Asso | Asso | 24/4/2025  | R | -- | Y | --        |
| 21 | Prof. Ghanshyam S. Shah      | Ph.D.  | GTU               | Signal Processing & Communication | 24/4/2025  | 1.2.6  | Asso | Asso | 24/4/2025  | R | -- | Y | --        |
| 22 | Prof Namrata Langhnoja       | Ph.D.  | R.K. University   | Antennas                          | 25/4/2025  | 1.2.5  | Asso | Asso | 25/4/2025  | R | -- | Y | --        |
| 23 | Prof P P Prajapati           | Ph.D.  | GTU               | CSE                               | 17/06/2011 | 13     | Asst | Asst | --         | R | -- | N | 23/4/2025 |
| 24 | Prof Kinjal Sheth            | Ph.D.  | Atmiya University | Image Processing                  | 19/05/2011 | 13     | Asst | Asst | --         | R | -- | N | 23/4/2025 |

|    |                                   |       |                         |             |            |         |      |      |    |       |    |   |           |
|----|-----------------------------------|-------|-------------------------|-------------|------------|---------|------|------|----|-------|----|---|-----------|
| 25 | Prof<br>Anilkumar<br>J. Kshatriya | Ph.D. | GTU                     | EC          | 5/12/2018  |         | Asst | Asst | -- | R     | -- | N | 23/4/2025 |
| 26 | Prof. Kirit V<br>Patel            | Ph.D. | GTU                     | VLSI DESIGN | 18/09/2018 | 5.9     | Asst | Asst | -- | R     | -- | N | 24/4/2025 |
| NC | Prof U V<br>Unagar                | B.E.  | Bhavnagar<br>University | EC          | 16/01/2016 | 10.5.14 | Asst | Asst | -- | Adhoc | -- | Y | --        |

**Table No.C2: Faculty details of Allied Departments for the past 3 years including CAY. S.**

| Sr. No. | Name of the Faculty   | PAN No.    | APAAR Faculty ID (If any) | Highest degree | University       | Area of Specialization          | Date of joining this institution | Experience in years In current institute | Designation at the time joining in this institution | Present designation | Date on which Designated as Professor/Associate Professor | Nature of Association (Regular/Contract) | If contractual (Full time/ part time) | Currently Associated (Y/N) | Date of Leaving |
|---------|-----------------------|------------|---------------------------|----------------|------------------|---------------------------------|----------------------------------|------------------------------------------|-----------------------------------------------------|---------------------|-----------------------------------------------------------|------------------------------------------|---------------------------------------|----------------------------|-----------------|
| 1       | Dr. Nilay N. Bhuptani |            |                           | Ph.D.          | IIT - Bombay     | Systems and Control Engineering | 01-02-2024                       | 2.5                                      | Principal                                           | Principal           | --                                                        | R                                        | --                                    | Y                          | --              |
| 2       | Dr. M.T. Thakker      | ACSPT7278F |                           | Ph.D.          | DDU- Nadiad      | IC                              | 22-05-2018                       | 8.1.8                                    | Prof                                                | Prof                | --                                                        | R                                        | --                                    | Y                          | --              |
| 3       | Dr. K. B. BHOYANI A   | ABZPB4099C |                           | Ph.D.          | KSU- Gandhinagar | IC                              | 24-04-2025                       | 1.2.6                                    | Asso                                                | Asso                | --                                                        | R                                        | --                                    | Y                          | --              |
| 4       | Dr. T V Shah          | ACMPS6148P |                           | Ph.D.          | BHAVNAGAR        | IC                              | 10-03-2021                       | 5.3.20                                   | Asso                                                | Asso                | --                                                        | R                                        | --                                    | Y                          | --              |
| 5       | V. P. Patel           | AEEPP8474K |                           | M.E/<br>M.Tech | IIT- ROORKEE     | Instrumentation                 | 28-09-2012                       | 13.9.2                                   | Asso                                                | Asso                | --                                                        | R                                        | --                                    | Y                          | --              |
| 6       | Dr. D H               | AGAPM6194  |                           | Ph.D.          | IIT Bombay       | Applied Instrumentation         | 10-03-                           | 5.3.20                                   | Asso                                                | Asso                | --                                                        | R                                        | --                                    | Y                          | --              |

|    |                  |            |  |                |                             |                                         |            |         |      |      |    |                      |    |   |    |
|----|------------------|------------|--|----------------|-----------------------------|-----------------------------------------|------------|---------|------|------|----|----------------------|----|---|----|
|    | Makwana          | M          |  |                | n                           | 2021                                    |            |         |      |      |    |                      |    |   |    |
| 7  | Dr. M.C. Patel   | ACDPP6345G |  | Ph.D.          | R. K. University            | Applied Instrumentation                 | 11-12-2013 | 12.6.19 | Asst | Asst | -- | R                    | -- | Y | -- |
| 8  | Dr. V.H. Trivedi | BDSPP9096H |  | Ph.D.          | GTU Ahmedabad               | Biomedical Instrumentation              | 02-05-2011 | 15.1.28 | Asst | Asst | -- | R                    | -- | Y | -- |
| 9  | Dr. A. K. Shah   | BDBPS7022M |  | Ph.D.          | Nirma University, Ahmedabad | Robust Control                          | 06-06-2016 | 10.0.24 | Asst | Asst | -- | R                    | -- | Y | -- |
| 10 | H. K. Shastri    | BTJPS8205G |  | M.E/<br>M.Tech | DDU- Nadiad                 | IC                                      | 04-12-2018 | 7.6.26  | Asst | Asst | -- | R                    | -- | Y | -- |
| 11 | L. S.Patel       | AJPPP7566E |  | M.E/<br>M.Tech | GTU Ahmedabad               | Applied Instrumentation                 | 29-06-2018 | 8.0.1   | Asst | Asst | -- | R                    | -- | Y | -- |
| 12 | D.V. Raninga     | BCJPR9752G |  | M.E/<br>M.Tech | NIT Tiruchirappalli         | Process control and Instrumentation     | 19-07-2018 | 7.11.11 | Asst | Asst | -- | R                    | -- | Y | -- |
| 13 | U. G. Suhagiya   | FWQPS7872K |  | M.E/<br>M.Tech | GTU Ahmedabad               | Applied Instrumentation                 | 02-11-2016 | 9.7.28  | Asst | Asst | -- | Contractual Fulltime | -- | Y | -- |
| 14 | N. A. Kanani     | DMTPK1120B |  | M.E/<br>M.Tech | DDU- Nadiad                 | Instrumentation and Control Engineering | 02-11-2016 | 9.7.28  | Asst | Asst | -- | Contractual Fulltime | -- | Y | -- |

|        |                        |            |  |            |                                  |                                         |            |          |      |      |    |                      |    |   |    |
|--------|------------------------|------------|--|------------|----------------------------------|-----------------------------------------|------------|----------|------|------|----|----------------------|----|---|----|
| 15     | Prof. Mitul Patel      | ATHPP8064B |  | PhD        | GTU                              | Biomedical Engg                         | 24/04/2025 | 1.2.6    | Asso | Asso | -- | R                    | -- | Y | -- |
| 16     | Prof. Bhavesh Parmar   | AOTPP5753Q |  | PhD        | GTU, Ahmedabad                   | Biomedical Engg                         | 01/11/2011 | 14.7.29  | Asst | Asst | -- | R                    | -- | Y | -- |
| 17     | Prof. Utkarsh Pancholi | BBMPP7849E |  | PhD        | GTU                              | Biomedical Engg                         | 23-12-2010 | 15.6.7   | Asst | Asst | -- | R                    | -- | Y | -- |
| 18     | Prof. Bhavin Mehta     | AONPM3657A |  | M.tech     | SRM                              | Biomedical Engg                         | 14-07-2017 | 8.11.16  | Asst | Asst | -- | R                    | -- | Y | -- |
| 19     | Prof. Harshal Patel    | ASZPP4780H |  | ME         | GTU                              | Biomedical Engg                         | 07/07/2018 | 7.11.23  | Asst | Asst | -- | R                    | -- | Y | -- |
| 20     | Prof. Yogita Parikh    | BZCPP5046B |  | M.tech     | savitribai phule pune university | Biomedical Engg                         | 29/6/2018  | 8.0.1    | Asst | Asst | -- | R                    | -- | Y | -- |
| 21     | Prof. Pooja Gohel      | AVIPG2310A |  | M.tech     | VIT University                   | Biomedical Engg                         | 29/6/2018  | 8.0.1    | Asst | Asst | -- | R                    | -- | Y | -- |
| N<br>C | C. V. Shah             | CAHPS8764G |  | B.E/B.Tech | DDU- Nadiad                      | Instrumentation and Control Engineering | 05-08-2008 | 17.10.25 | Asst | Asst | -- | Contractual Fulltime | -- | Y | -- |

**C2: Student-Faculty Ratio (SFR)***Table No.C2.1: Student-faculty ratio.*

| <b>Year</b>                                                                       | <b>CAY(2025-2026)</b>                  | <b>CAYm1(2024-2025)</b>               | <b>CAYm2(2023-2024)</b>              |
|-----------------------------------------------------------------------------------|----------------------------------------|---------------------------------------|--------------------------------------|
| UG <sub>1</sub> . B                                                               | 132                                    | 132                                   | 132                                  |
| UG <sub>1</sub> . C                                                               | 132                                    | 132                                   | 132                                  |
| UG <sub>1</sub> . D                                                               | 132                                    | 132                                   | 132                                  |
| <b>UG<sub>1</sub>(UG-Engineering-EC)</b>                                          | <b>396</b>                             | <b>396</b>                            | <b>396</b>                           |
| UG <sub>2</sub> . B                                                               | 66                                     | 66                                    | 66                                   |
| UG <sub>2</sub> . C                                                               | 66                                     | 66                                    | 66                                   |
| UG <sub>2</sub> . D                                                               | 66                                     | 66                                    | 66                                   |
| <b>UG<sub>2</sub> (UG-Engineering-Biomedical)</b>                                 | <b>198</b>                             | <b>198</b>                            | <b>198</b>                           |
| UG <sub>3</sub> . B                                                               | 99                                     | 99                                    | 66                                   |
| UG <sub>3</sub> . C                                                               | 99                                     | 66                                    | 66                                   |
| UG <sub>3</sub> . D                                                               | 66                                     | 66                                    | 66                                   |
| <b>UG<sub>3</sub> (UG-Engineering IC)</b>                                         | <b>264</b>                             | <b>231</b>                            | <b>198</b>                           |
| PG <sub>1</sub> . A (CSE)                                                         | 36                                     | 36                                    | 36                                   |
| PG <sub>1</sub> . B                                                               | 36                                     | 36                                    | 36                                   |
| <b>PG<sub>1</sub> (PG-Engineering-CSE)</b>                                        | <b>72</b>                              | <b>72</b>                             | <b>72</b>                            |
| PG <sub>2</sub> . A                                                               | 18                                     | 18                                    | 18                                   |
| PG <sub>2</sub> . B                                                               | 18                                     | 18                                    | 0                                    |
| <b>PG<sub>2</sub> (PG-Engineering-VLSI Design)</b>                                | <b>36</b>                              | <b>36</b>                             | <b>18</b>                            |
| PG <sub>3</sub> . A                                                               | 18                                     | 18                                    | 18                                   |
| PG <sub>3</sub> . B                                                               | 18                                     | 18                                    | 18                                   |
| <b>PG<sub>3</sub> (PG-Engineering-IC)</b>                                         | <b>36</b>                              | <b>36</b>                             | <b>36</b>                            |
| DS=Total no. of students in all UG and PG programs in the Department              | <b>504</b>                             | <b>504</b>                            | <b>486</b>                           |
| AS=Total no. of students of all UG and PG programs in allied departments          | <b>498</b>                             | <b>465</b>                            | <b>432</b>                           |
| <b>S=Total no. of students in the Department (DS) and allied departments (AS)</b> | S1=1002<br>(858 (all UGs)<br>+144(PG)) | S1=969<br>(825 (all UGs)<br>+144(PG)) | S1=918<br>(792(all UGs)<br>+126(PG)) |

|                                                                                     |                                            |                   |                   |
|-------------------------------------------------------------------------------------|--------------------------------------------|-------------------|-------------------|
| DF=Total no. of faculty members in the Department                                   | 21                                         | 18                | 21                |
| AF= Total no. of faculty members in the allied Departments                          | 21 (14+7)                                  | 19 (13+6)         | 18 (12+6)         |
| F=Total no. of faculty members in the Department (DF) and allied Departments (AF)   | F1=42                                      | F2=37             | F3=39             |
| FF=The faculty members in F who have a 100% teaching load in the first-year courses | 0                                          | 0                 | 0                 |
| <b>Student Faculty Ratio (SFR)=S/(F-FF)</b>                                         | SFR1=1002/43=23.86                         | SFR2=969/37=26.19 | SFR3=918/39=23.54 |
| Average SFR for 3 years                                                             | Average SFR<br>=(23.86+26.19+23.54)/3=24.5 |                   |                   |

### C3: Faculty Qualification

*Table No.C3.1: Faculty qualification.*

| Years                       | X(Ph.D)                   | Y(M.Tech.) | RF    | $FQ=2.5 \times [(10X + 4Y)/RF]$ |
|-----------------------------|---------------------------|------------|-------|---------------------------------|
| 2025-26 (CAY)               | 19                        | 23         | 50.00 | 14.10                           |
| 2024-25(CAY <sub>m1</sub> ) | 13                        | 24         | 48.00 | 11.77                           |
| 2023-24(CAY <sub>m2</sub> ) | 12                        | 27         | 45.00 | 12.67                           |
|                             | <b>Average Assessment</b> |            |       | <b>12.85</b>                    |

### C4: Faculty Cadre Proportion

*Table No.C4.1: Faculty cadre proportion details.*

| Year                        | Professors             |                         | Associate Professors   |                         | Assistant Professors   |                         |
|-----------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|
|                             | Required Faculty (RF1) | Available Faculty (AF1) | Required Faculty (RF2) | Available Faculty (AF2) | Required Faculty (RF3) | Available Faculty (AF3) |
| 2025-26 (CAY)               | 5.00                   | 2.00                    | 11.00                  | 9.00                    | 33.00                  | 29.00                   |
| 2024-25(CAY <sub>m1</sub> ) | 5.00                   | 3.00                    | 10.00                  | 4.00                    | 32.00                  | 28.00                   |
| 2023-24(CAY <sub>m2</sub> ) | 5.00                   | 2.00                    | 10.00                  | 4.00                    | 30.00                  | 31.00                   |
| Average Numbers             | RF1=5.00               | AF1=2.33                | RF2=10.33              | AF2=5.67                | RF3=31.67              | AF3= 29.33              |

**C5: Visiting/Adjunct Faculty/Professor of Practice - NIL**

**Table No. C5.1:** List of visiting/adjunct faculty/professor of practice and their teaching and practical loads.

| S.N.  | Name of the Person | Designation & Organization | Name of the Course | No. of hours handled |
|-------|--------------------|----------------------------|--------------------|----------------------|
| CAYm1 |                    |                            |                    |                      |
|       |                    |                            |                    |                      |
|       |                    |                            |                    |                      |
| CAYm2 |                    |                            |                    |                      |
|       |                    |                            |                    |                      |
|       |                    |                            |                    |                      |
| CAYm3 |                    |                            |                    |                      |
|       |                    |                            |                    |                      |
|       |                    |                            |                    |                      |
|       |                    |                            |                    |                      |

## C6: Academic Research

**Table No. C6.1: Faculty publication details**

| Sr. No. | Item                                             | 2024-25 (CAYm1) | 2023-24 (CAYm2) | 2022-23 (CAYm3) |
|---------|--------------------------------------------------|-----------------|-----------------|-----------------|
| 1       | No. of peer reviewed journal papers published    | 14              | 7               | 7               |
| 2       | No. of peer reviewed conference papers published | 3               | 0               | 0               |
| 3       | No. of books/book chapters published             | 0               | 2               | 0               |

### C7: Sponsored Research Project-NIL

**Table No. C7.1: List of sponsored research projects received from external agencies**

| Sr. No.               | PI name | Co-PI names if any | Name of the Dept., where Project is sanctioned | Project title* | Name of the Funding agency | Duration of the project | Amount (Lacs) |
|-----------------------|---------|--------------------|------------------------------------------------|----------------|----------------------------|-------------------------|---------------|
| CAYm1                 |         |                    |                                                |                |                            |                         |               |
|                       |         |                    |                                                |                |                            |                         |               |
| ..                    |         |                    |                                                |                |                            |                         |               |
| Amount received (Rs.) |         |                    |                                                |                |                            |                         |               |
| CAYm2                 |         |                    |                                                |                |                            |                         |               |

|                                                   |  |  |  |  |  |  |  |
|---------------------------------------------------|--|--|--|--|--|--|--|
| 1                                                 |  |  |  |  |  |  |  |
| ...                                               |  |  |  |  |  |  |  |
| Amount received (Rs.)                             |  |  |  |  |  |  |  |
| CAYm3                                             |  |  |  |  |  |  |  |
| 1                                                 |  |  |  |  |  |  |  |
| ..                                                |  |  |  |  |  |  |  |
| Amount received (Rs.)                             |  |  |  |  |  |  |  |
| Total Amount (Lacs) Received for the Past 3 Years |  |  |  |  |  |  |  |

## C8: Consultancy Work

**Table No. C8.1: List of consultancy projects received from external agencies**

| Sr. No.                                                  | PI name                | Co-PI names if any | Name of the Dept., were Project is sanctioned | Project title*                                   | Name of the Funding agency | Duration of the project | Amount (Lacs) |
|----------------------------------------------------------|------------------------|--------------------|-----------------------------------------------|--------------------------------------------------|----------------------------|-------------------------|---------------|
| <b>CAYm1</b>                                             |                        |                    |                                               |                                                  |                            |                         |               |
| 1                                                        | Prof. Pankaj Prajapati |                    | EDII                                          | Vetting of specification document for PCB Design | EDII                       |                         | 10000         |
| ..                                                       |                        |                    |                                               |                                                  |                            |                         |               |
| <b>Amount received (Rs.)</b>                             |                        |                    |                                               |                                                  |                            |                         |               |
| <b>CAYm2</b>                                             |                        |                    |                                               |                                                  |                            |                         |               |
| 1                                                        |                        |                    |                                               |                                                  |                            |                         |               |
| ...                                                      |                        |                    |                                               |                                                  |                            |                         |               |
| <b>Amount received (Rs.)</b>                             |                        |                    |                                               |                                                  |                            |                         |               |
| <b>CAYm3</b>                                             |                        |                    |                                               |                                                  |                            |                         |               |
| 1                                                        |                        |                    |                                               |                                                  |                            |                         |               |
| ..                                                       |                        |                    |                                               |                                                  |                            |                         |               |
| <b>Amount received (Rs.)</b>                             |                        |                    |                                               |                                                  |                            |                         |               |
| <b>Total amount (Lacs) received for the past 3 years</b> |                        |                    |                                               |                                                  |                            |                         |               |

**C9: Institution Seed Money or Internal Research Grant to its Faculty for Research Work**

**Table No. C9.1: List of faculty members received seed money or internal research grant from the Institution**

| Sr. No.                               | Faculty name                            | Project title/<br>Support for Activity  | Sponsoring Agency | Amount (INR) | Amount Utilized (INR) | Outcomes of the project |
|---------------------------------------|-----------------------------------------|-----------------------------------------|-------------------|--------------|-----------------------|-------------------------|
| <b>CAYm1 (2024-25)</b>                |                                         |                                         |                   |              |                       |                         |
| <b>1</b>                              | Honey Shah<br>Prof. V. N.<br>Chavda     | IOT based Fire Emergency Control System | <b>SSIP GOG</b>   | 150150       | 100000                | In progress             |
| <b>2</b>                              | Disha Solanki<br>Prof. Nirali Kotak     | Women At Work                           | <b>SSIP GOG</b>   | 249796       | 11373                 | Close                   |
| <b>3</b>                              | karan mishra,<br>Prof. Dhaval Patel     | Automated dip prajwlan                  | <b>SSIP GOG</b>   | 60000        | 20000                 | In progress             |
| <b>4</b>                              | Patel Om,<br>Dr. C. H. Vithlani         | Multi Purpose Interfacing Kit           | <b>SSIP GOG</b>   | 51000        | 51000                 | PoC Developed           |
| <b>5</b>                              | Paridhi Karmakar,<br>Dr. M. C. Sahoo    | Garuda Drone                            | <b>SSIP GOG</b>   | 50,000       | 50,000                | PoC Developed           |
| <b>6</b>                              | Singh jeevesh,<br>Prof. S. M. Vaishnav  | Medical Emergency Drone                 | <b>SSIP GOG</b>   | 1,00,000     | 58893                 | In progress             |
| <b>7</b>                              | Nisarg Parikh,<br>Dr. C. H. Vithlani    | Wash Wizard                             | <b>SSIP GOG</b>   | 75,000       | 20000                 | In progress             |
| <b>8</b>                              | Shubham Dalwala,<br>Prof. K. G. Vaghela | AMEY Robotics                           | <b>SSIP GOG</b>   | 1,00,000     | 70240                 | In progress             |
| <b>Amount received (Rs.) 8,35,946</b> |                                         |                                         |                   |              |                       |                         |

| CAYm2 (2023-24)                                   |                                           |                     |             |       |          |           |
|---------------------------------------------------|-------------------------------------------|---------------------|-------------|-------|----------|-----------|
| 1                                                 |                                           |                     |             |       |          |           |
| Amount received (Rs.)                             |                                           |                     |             |       |          |           |
| CAYm3 (2022-23)                                   |                                           |                     |             |       |          |           |
| 1                                                 | Harsh Mehta,<br>Prof. Dhaval<br>Patel     | Renewable<br>Energy | SSIP<br>GOG | 39950 | 2699     | Closed    |
| 2                                                 | Aniket Rohara,<br>Prof. Abhay<br>Upadhyay | Robot               | SSIP<br>GOG | 20000 | 20000    | Completed |
| Amount received (Rs.)                             |                                           |                     |             |       | 59,950   |           |
| Total amount (Lacs) received for the past 3 years |                                           |                     |             |       | 8,95,896 |           |

## PART-D: Laboratory Infrastructure in the Department

### D1: Adequate and Well-Equipped Laboratories, and Technical Manpower

*Table No.D1.1: List of laboratories and technical manpower.*

| Sr. No. | Name of the Laboratory | No. Of Students per setup (Batch Size) | Name of the Major Equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Weekly utilization status (all the courses for which the lab is utilized) | Technical Manpower support  |                |                                              |
|---------|------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------|----------------|----------------------------------------------|
|         |                        |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                           | Name of the Technical Staff | Designation    | Qualification                                |
| 1       | Basic electronics      | 27                                     | Experimental kit for VI characteristics of semiconductor diode (PN, ZENER, LED, etc)<br>Experimental kit to design and test diode rectifier circuits<br>Experimental kit of clamper and clipper circuits<br>Experimental kit to obtain transistor characteristics, configuration and biasing methods<br>Experimental kit of CE, CB and CC circuits of transistor<br>Experimental kit of transistorized amplifier circuit<br>Experimental kit to plot characteristics of FET | 24 hrs                                                                    | A. B. Nekarani              | Lab Instructor | Diploma in Electronics and Radio Engineering |

|   |                                         |    |                                                                                                                                                                                                                                              |         |                   |                   |                                                       |
|---|-----------------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------|-------------------|-------------------------------------------------------|
| 2 | Workshop/<br>Manufacturing<br>Practices | 27 | Basic Electronics components like<br>Resistors, LED, Transistors etc<br>Basic source and measuring<br>instruments (power supply, function<br>generator, CRO, DMM)<br>Solder and de-solder electronic<br>components on different types of PCB | 24 hrs  | A. B.<br>Nakarani | Lab<br>Instructor | Diploma in<br>Electronics<br>and Radio<br>Engineering |
| 3 | Control Systems                         | 27 | Computers with internet facility and<br>MATLAB software                                                                                                                                                                                      | 12 Hrs. | A. B.<br>Nakarani | Lab<br>Instructor | Diploma in<br>Electronics<br>and Radio<br>Engineering |
| 4 | Digital System<br>Design                | 27 | Digital Trainer Board<br>CRO<br>DC Power Supply<br>Multimeter                                                                                                                                                                                | 12 hrs  | A. B.<br>Nakarani | Lab<br>Instructor | Diploma in<br>Electronics<br>and Radio<br>Engineering |
| 5 | Network Theory                          | 27 | Basic trainer kit for experiments based<br>on theorems like:<br>Superposition theorem<br>Maximum power transfer theorem<br>Norton's theorem<br>Thevenin's theorem<br>Reciprocity theorem                                                     | 12 hrs  | A. B.<br>Nakarani | Lab<br>Instructor | Diploma in<br>Electronics<br>and Radio<br>Engineering |
| 6 | Analog Circuit<br>Design                | 27 | Basic trainer kits like:<br>Op-amp trainer kit<br>Inverting-Non inverting amp. kit<br>Integrator and differentiator kit<br>Schmitt trigger kit<br>Active filter kit<br>555 Timer application kit<br>Other equipments:<br>DSO<br>Multimeter   | 12 hrs  | A. B.<br>Nakarani | Lab<br>Instructor | Diploma in<br>Electronics<br>and Radio<br>Engineering |

|    |                                   |    |                                                                                                                                                                                |        |                |                |                                              |
|----|-----------------------------------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------|----------------|----------------------------------------------|
| 7  | Signal & Systems                  | 27 | Computer set with software which supports the study of signals like: MATLAB                                                                                                    | 12 hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 8  | Microprocessor & Microcontroller  | 27 | Computers<br>Arduino boards<br>I/O boards<br>AVR Trainer kit                                                                                                                   | 12Hrs  | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 9  | Electronic Measurement Laboratory | 27 | Bridge Trainer Kits (Kelvin Bridge, Wheatstone Bridge, Maxwell's Bridge, Wein Bridge)<br>R-L-C network                                                                         | 12Hrs  | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 10 | Analog and Digital Communication  | 22 | AM Transmitter Receiver Trainer Kit, FM Transmitter, Receiver Trainer Kit, Sampling Trainer Kit, TDM PCM Trainer, Digital storage Oscilloscope.                                | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 11 | VLSI Design                       | 22 | FPGA Boards<br>Computers with internet facility having software support like vivado microwind                                                                                  | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 12 | Power Electronics                 | 22 | Trainer kit of DIAC<br>Trainer kit of Triac<br>Trainer kit of UJT<br>Trainer kit of IGBT<br>Trainer kit of Single phase Half and Full converter<br>Trainer kit of SMPS and UPS | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 13 | Advance Microcontroller           | 22 | ARM7 Development Board, NodeMCU, I/O Boards, Sensors, DSO, Analog Discovery 2.0                                                                                                | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |

|    |                           |    |                                                                                                         |        |                |                |                                              |
|----|---------------------------|----|---------------------------------------------------------------------------------------------------------|--------|----------------|----------------|----------------------------------------------|
| 14 | Python Programming        | 22 | Computers with internet facility having software support like Python jupyter notebook NodeMCU (ESP8266) | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 15 | Antennas and Propagation  | 22 | Scienteck Antenna Trainer-2261A                                                                         | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 16 | Fiber Optic Communication | 22 | Fiber Optic Trainer kit, DSO, Function Generator                                                        | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 17 | Computer Networks         | 22 | Computers with internet facility having software support like CISCO Packet Tracer                       | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 18 | Embedded Systems          | 22 | MSP430 Launchpad boards, I/O Boards, DSO, Sensors                                                       | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 19 | Satellite Communication   | 22 | Computers with internet facilities alongwith MATLAB software                                            | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 20 | Web Technology            | 22 | Computers with internet facilities alongwith web development software                                   | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |

|    |                                         |    |                                                                                                                                            |        |                |                |                                              |
|----|-----------------------------------------|----|--------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------|----------------|----------------------------------------------|
| 21 | Microwave Theory and Techniques         | 22 | Microwave Test Bench with<br>Gunn Diode<br>E plane Tee<br>H plane Tee<br>Magic Tee.                                                        | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 22 | Digital Signal Processing               | 22 | Computers with internet connectivity and MATLAB Software                                                                                   | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 23 | Wireless Communication                  | 22 | CDMA Trainerkit ST-1131<br>GSM trainerkit 020645/46<br>mobile phone trainer model st2132<br>mobile tele communication trainer model-mt2000 | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 24 | Introduction of Artificial Intelligence | 22 | Computers with internet facility having software support like<br>Jupyter notebook<br>Python<br>Google Colab                                | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 25 | Internet of Things                      | 22 | Arduino Boards<br>Raspberry Pi Boards<br>Sensors & Actuators<br>Computers<br>Cisco Packet Tracer                                           | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 26 | Digital Image and Video Processing      | 22 | Computers with internet facility having software support like<br>Jupyter notebook<br>Python<br>Google Colab<br>MATLAB<br>Scilab            | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |

|    |                                  |    |                                                                                                    |        |                |                |                                              |
|----|----------------------------------|----|----------------------------------------------------------------------------------------------------|--------|----------------|----------------|----------------------------------------------|
| 27 | Testing and Verification         | 22 | Computers with internet facility having software like Vivado Cadance Siemens                       | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 28 | Introduction of Machine learning | 22 | Computers with internet facility having software support like Jupyter notebook Python Google Colab | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |
| 29 | Project Laboratory               | 22 | DCO, Function Generator, Electronic work bench, FPGA development kit, Spectrum analyzer            | 16 Hrs | A. B. Nakarani | Lab Instructor | Diploma in Electronics and Radio Engineering |

## D2: Safety Measures in Laboratories

*Table No. D2.1: List of various safety measures in laboratories.*

| S.N. | Name of Laboratory      | Safety Measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Digital Electronics Lab | <ul style="list-style-type: none"><li>• Do's and Don'ts displayed in the laboratory.</li><li>• Students instructed to switch OFF power before inserting or removing ICs from trainer kits.</li><li>• Proper earthing provided for digital trainer kits and instruments.</li><li>• MCB and fuse protection installed for electrical safety.</li><li>• Anti-static precautions followed while handling ICs.</li><li>• Experiments are supervised by the laboratory assistant and concerned faculty member.</li></ul>                                      |
| 2    | Basic Electronics Lab   | <ul style="list-style-type: none"><li>• Safety instructions displayed for handling CRO, function generator, and regulated power supplies.</li><li>• Students are instructed to verify voltage and current limits before powering circuits.</li><li>• Proper earthing provided for all electronic instruments.</li><li>• MCB and fuse protection installed for equipment safety.</li><li>• Components checked before use to avoid short circuits.</li><li>• Laboratory sessions are supervised by the laboratory assistant and faculty member.</li></ul> |
| 3    | Communication Lab       | <ul style="list-style-type: none"><li>• Laboratory safety guidelines displayed.</li><li>• Students instructed to operate signal generators, spectrum analyzers, and communication trainers within specified limits.</li><li>• Proper grounding provided for communication instruments.</li><li>• MCB protection installed for power supply units.</li><li>• RF cables and connectors handled carefully.</li><li>• Experiments are conducted under the supervision of the concerned faculty member.</li></ul>                                            |
| 4    | RF and Antenna Lab      | <ul style="list-style-type: none"><li>• Safety instructions displayed for handling RF transmitters and antenna measurement setups.</li><li>• Students instructed to maintain safe distance from RF transmitting antennas.</li></ul>                                                                                                                                                                                                                                                                                                                     |

|   |                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                            | <ul style="list-style-type: none"> <li>• Proper shielding and grounding provided for RF equipment.</li> <li>• MCB and fuse protection installed.</li> <li>• RF cables and connectors are handled carefully to avoid damage.</li> <li>• Experiments are conducted under the guidance and supervision of faculty members.</li> </ul>                                                                                                                                                                                                   |
| 5 | VLSI, IoT and Embedded Lab | <ul style="list-style-type: none"> <li>• Do's and Don'ts displayed in the laboratory.</li> <li>• Electrostatic discharge (ESD) precautions followed while handling embedded boards and chips.</li> <li>• Students are instructed to verify supply voltage before connecting microcontroller or FPGA boards.</li> <li>• Proper earthing and regulated power supplies provided.</li> <li>• MCB protection installed for electrical safety.</li> <li>• Laboratory activities are supervised by the concerned faculty member.</li> </ul> |
| 6 | Computer Lab               | <ul style="list-style-type: none"> <li>• Laboratory rules displayed for proper use of computer systems.</li> <li>• Proper earthing and surge protection provided for all systems.</li> <li>• MCB protection installed for electrical safety.</li> <li>• Students instructed not to connect unauthorized USB devices or install software.</li> <li>• Regular system maintenance and antivirus updates performed.</li> <li>• Lab sessions are monitored by the concerned faculty member.</li> </ul>                                    |

### D3: Project Laboratory/Research Laboratory

Table No. D3.1: List of project laboratory/research laboratory /Centre of Excellence.

| S.N. | Name of the Laboratory                             |
|------|----------------------------------------------------|
| 1    | Design Laboratory                                  |
| 2    | Project Laboratory                                 |
| 3    | Centre of Excellence for VLSI Design (C2S – MeitY) |

**E1: First Year Student-Faculty Ratio (FYSFR)****Table No. E1.1: FYSFR details.**

| Year               | Sanctioned intake of all UG programs (S4) | No. of required faculty (RF4= S4/20) | No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1) | No. of faculty members in Engineering Science Courses (NS2) | Percentage= No. of faculty members ((NS1*0.8) +(NS2*0.2))/(No. of required faculty (RF4)); Percentage=((NS1*0.8)+(NS2*0.2))/RF4 |
|--------------------|-------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| CAY 2025-26        | 1350                                      | 68                                   | 23                                                                                                                  | 123                                                         | $(23*0.8+123*0.2) *100/68$<br>= 63.24                                                                                           |
| CAYm1 2024-25      | 1350                                      | 68                                   | 20                                                                                                                  | 126                                                         | $(20*0.8+126*0.2) *100/68$<br>= 60.59                                                                                           |
| CAYm2 2023-24      | 1350                                      | 68                                   | 22                                                                                                                  | 108                                                         | $(22*0.8+108*0.2) *100/68$<br>= 57.65                                                                                           |
| Average Percentage |                                           |                                      |                                                                                                                     |                                                             | <b>60.49 (3 marks)</b>                                                                                                          |

## E2: Budget Allocation, Utilization, and Public Accounting at Institute Level

*Table No. E2.1: Budget and actual expenditure incurred at Institute level*

| Items                                                                                                                          | Budget ed in CFY | Actual expenses in CFY | Budget ed in CFYm1 | Actual Expenses in CFYm1 | Budget ed in CFYm2 | Actual Expenses in CFYm2 | Budget ed in CFYm3 | Actual Expenses in CFYm3 |
|--------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------|--------------------|--------------------------|--------------------|--------------------------|--------------------|--------------------------|
| Infrastructure Built-Up                                                                                                        | 1418.08          | 1418.08                | 2085.54            | 2085.54                  | 2317.42            | 2317.42                  | 1509               | 1509                     |
| Library                                                                                                                        | 14.82            | 1.61                   | 92.42              | 80.01                    | 2.86               | 2.09                     | 6.61               | 0.16                     |
| Laboratory equipment                                                                                                           | 927.97           | 367.66                 | 1634.21            | 153.18                   | 808.46             | 99.88                    | 263.43             | 37.97                    |
| Teaching and non-teaching staff salary                                                                                         | 8358             | 7914                   | 6699               | 6697                     | 6716               | 6710                     | 5643.24            | 5641.23                  |
| Outreach Programs                                                                                                              | 11.41            | 11.41                  | 8.3                | 8.28                     | 7.93               | 7.78                     | 8.29               | 7.90                     |
| R&D                                                                                                                            | 88.87            | 88.87                  | 77.47              | 77.47                    | 74.58              | 74.58                    | 78.22              | 78.22                    |
| Training, Placement and Industry linkage                                                                                       | 3.35             | 3.35                   | 6.00               | 6.00                     | 3.00               | 3.00                     | 2.24               | 2.24                     |
| SDGs                                                                                                                           | 23.32            | 23.32                  | 15.11              | 15.11                    | 8.44               | 8.44                     | 5.66               | 5.66                     |
| Entrepreneurs hip                                                                                                              | 3.09             | 3.09                   | 0.97               | 0.97                     | 7.07               | 7.07                     | 2.09               | 2.09                     |
| Others (Office Expenses, Services, maintenance, Miscellaneous, etc. from IFMS and PLA which are not designates in above heads) | 1282.24          | 1124.24                | 1368.23            | 1301.23                  | 937.53             | 932.53                   | 784.04             | 756.93                   |
| <b>Total amount</b>                                                                                                            | <b>12131.16</b>  | <b>10955.64</b>        | <b>11987.25</b>    | <b>10424.79</b>          | <b>10883.29</b>    | <b>10162.79</b>          | <b>8302.81</b>     | <b>8041.39</b>           |

## E3: Budget Allocation, Utilization, and Public Accounting at Program Specific Level

**Table No. E3.1: Budget and actual expenditure incurred at Program level**

| Items                                            | Budget ed in CFY | Actual expenses in CFY | Budget ed in CFYm1 | Actual Expenses in CFYm1 | Budget ed in CFYm2 | Actual Expenses in CFYm2 | Budget ed in CFYm3 | Actual Expenses in CFYm3 |
|--------------------------------------------------|------------------|------------------------|--------------------|--------------------------|--------------------|--------------------------|--------------------|--------------------------|
| Laboratory equipment                             | 35               | 21                     | 85                 | 67.68                    | 13.53              | 13.53                    | 8                  | 4.42                     |
| software                                         | 5.84             | 5.84                   | 0                  | 0                        | 0                  | 0                        | 0                  | 0                        |
| SDGs                                             | 2.03383838       | 2.03383838             | 1.383601531        | 1.383601531              | 0.7839951901       | 0.7839951901             | 0.4825912863       | 0.4825912863             |
| Support for faculty development                  | 659.21           | 659.21                 | 491.78             | 491.78                   | 450.97             | 450.97                   | 388.61             | 388.61                   |
| R&D                                              | 0                | 0                      | 32.73              | 32.73                    | 0                  | 0                        | 0                  | 0                        |
| industrial training, industry expert, internship | 0.12             | 0.12                   | 0.15               | 0.15                     | 0.05               | 0.05                     | 0.02               | 0.02                     |
| Misc. Expenses                                   | 111.8084044      | 104.7280138            | 125.2825635        | 119.1476704              | 87.08748154        | 86.62302942              | 66.90905024        | 64.59551358              |
| Total amount                                     | 814.0122428      | 792.9318521            | 736.326165         | 712.8712719              | 552.4214767        | 551.9570246              | 464.0216415        | 458.1281049              |

  
 Dr. Nilay Bhuptani  
 Principal  
**PRINCIPAL**  
**LD. College of Engineering**  
**AHMEDABAD-15.**