

**SAHRDAYA COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**KODAKARA**  
**MANDATORY DISCLOSURE**

|   |                        |
|---|------------------------|
| <b>AICTE FILE NO.</b>                   | 06/06/KER/ENGG/2002/67 |
| <b>AICTE P-ID</b>                       | 1-6023211              |
| <b>Date and Period of Last Approval</b> | 03-Jul-2022, 2022-23   |

**1. NAME OF THE INSTITUTION**

|                                   |  |
|-----------------------------------|--|
| <b>NAME OF THE INSTITUTION:</b>   | SAHRDAYA COLLEGE OF ENGINEERING AND TECHNOLOGY   |
| <b>Address of the Institution</b> | P B NO. 17, KODAKARA, THRISSUR - 680684, KERALA<br>PHONE : 0480-2726630, 2759275<br>EMAIL : info@sahrdaya.ac.in, info.sahrdaya.ac.in<br>WEBSITE : www.sahrdaya.ac.in |
| <b>Longitude &amp; Latitude :</b> | 76.3056 & 10.3719  |
| <b>Office Hours :</b>             | 8:45 AM to 4:30 PM   |
| <b>Academic Hours :</b>           | 8:45 AM to 3:45 PM   |
| <b>Nearest Rly Station :</b>      | Irinjalakuda – 5 kilometers  |
| <b>Nearest Airport :</b>          | Nedumbassery – Cochin Airpot – 25 km   |

**2 NAME AND ADDRESS OF THE TRUST/SOCIETY /COMPANY AND THE TRUSTEES:**

|   |   |
|---|---|
| <b>NAME AND ADDRESS OF THE TRUST/SOCIETY /COMPANY AND THE TRUSTEES:</b> | Irinjalakuda Diocesan Educational Trust-(IDET)<br>Catholic Bishops House, Irinjalakuda, Manavalassery Village, Mukundapuram Taluk, Thrissur, Kerala - 680 121 www.irinjalakudadiocese.com |
| <b>Type of Organisation</b>   | Trust   |
| <b>Registered with</b>  | Registration Department Of Kerala on 23/07/2001   |

**3 NAME OF THE PRINCIPAL/ DIRECTOR**

|  |   |
|--|---|
| <b>NAME AND ADDRESS OF THE PRINCIPAL</b> | DR. NIXON KURUVILA<br>Kolapran House Kodakara, 680684<br>9446229344<br>nixonkuruvilak@gmail.com   |
| <b>NAME AND ADDRESS OF THE DIRECTOR</b>  | Dr. Elizabeth Elias<br>W/O Tholath Zacharia Varghese, Anugraha, 12th Mile, Chathamangalam, NIT Campus, P.O. Kozhikode- 673601. 9447949205. elizabethelias@gmail.com |

**4 NAME OF THE AFFILIATING UNIVERSITY**

|   |  |
|---|--|
| <b>NAME OF THE AFFILIATING UNIVERSITY</b> | APJ ABDUL KALAM TECHNOLOGICAL UNIVERISTY           |
| <b>ADDRESS</b>                            | CET CAMPUS, THIRUVANATHAPURAM, KERALA - 695016     |
| <b>WEBSITE</b>                            | <a href="http://www.ktu.edu.in">www.ktu.edu.in</a> |
| <b>Latest affiliation period</b>          | 2021-22  |

**5 GOVERNANCE**

|                       |   |
|-----------------------|---|
| Governing Body        | <a href="https://sahrdaya.ac.in/governing-body/">https://sahrdaya.ac.in/governing-body/</a> |
| Frequency of meetings | Once in 6 months  |

|   |  |
|---|--|
| Academic Advisory Body<br>Frequency of meetings   | <a href="https://sahrdaya.ac.in/management/">https://sahrdaya.ac.in/management/</a><br>Once in a year  |
| Mechanism,/Norms and<br>procedure for democratic/<br>good governance  | Board of trustees and Academic Advisory committee<br>manages the governance.   |
| Student feedback on<br>institutional Governance/<br>Faculty performance   | Available in the institution   |
| Organisational Chart  | <a href="https://sahrdaya.ac.in/management/">https://sahrdaya.ac.in/management/</a>  |
| Nature and extent of<br>involvement of faculty<br>and students in the<br>academic affairs/improvements                    | Department meetings are held frequently to assess the progress<br>and discuss improvements if any. Students give feedback in<br>the prescribed formats |
| Grievance Redressal mechanism<br>for faculty, staff and students  | <a href="https://sahrdaya.ac.in/grievance/">https://sahrdaya.ac.in/grievance/</a>  |
| Establishment of Anti-ragging<br>Committee  | <a href="https://sahrdaya.ac.in/anti-ragging-cell/">https://sahrdaya.ac.in/anti-ragging-cell/</a>  |
| Establishment of online<br>grievance redressal system   | <a href="https://sahrdaya.ac.in/grievance/">https://sahrdaya.ac.in/grievance/</a>  |
| Establishment of Grievance<br>Redressal Committee in<br>the institution and appointment<br>of OMBUDSMAN by the university | <a href="https://sahrdaya.ac.in/grievance/">https://sahrdaya.ac.in/grievance/</a>  |
| Establishment of Committee for<br>SC/ST   | LINK   |
| Internal Quality Assurance Cell   | <a href="https://sahrdaya.ac.in/igac/igac-committee/">https://sahrdaya.ac.in/igac/igac-committee/</a>  |

## 6 PROGRAMMES UNDER GRADUATE

| Sl. No               | Programmes approved by AICTE              | Status of Accreditation | Number of seats | Tuition fees | Duration of Programme | Placement details   |
|----------------------|---|-------------------------|-----------------|--------------|-----------------------|---|
| 1                    | BIOMEDICAL ENGINEERING                    | Accredited              | 60              | 75000        | 4                     | <a href="https://sahrdaya.ac.in/tap/placement-history/">https://sahrdaya.ac.in/tap/placement-history/</a> |
| 2                    | BIOTECHNOLOGY                             | Accredited              | 60              | 75000        | 4                     |   |
| 3                    | CIVIL ENGINEERING                         | Accredited              | 60              | 75000        | 4                     |   |
| 4                    | COMPUTER SCIENCE & ENGINEERING            | Accredited              | 150             | 75000        | 4                     |   |
| 5                    | ELECTRONICS AND COMMUNICATION ENGINEERING | Not Applied             | 60              | 75000        | 4                     |   |
| 6                    | ELECTRICAL AND ELECTRONICS ENGINEERING    | Not Applied             | 30              | 75000        | 4                     |   |
| <b>POST GRADUATE</b> |   |                         |                 |              |                       |   |
| Sl. No               | Programmes approved by AICTE              | Status of Accreditation | Number of seats | Tuition fees | Duration of Programme | Placement details   |
| 7                    | INDUSTRIAL BIOTECHNOLOGY                  | Not Applied             | 6               | 35000        | 2                     | <a href="https://sahrdaya.ac.in/tap/placement-history/">https://sahrdaya.ac.in/tap/placement-history/</a> |
| 8                    | COMPUTER SCIENCE & ENGINEERING            | Not Applied             | 6               | 35000        | 2                     |   |

|   |  |             |   |       |   |   |
|---|--|-------------|---|-------|---|---|
| 9 | EMBEDDED SYSTEMS<br>(ELECTRONICS AND<br>COMMUNICATION ENGINEERING) | Not Applied | 6 | 35000 | 2 | <a href="http://sahrdaya.ac.in/tap/placement-history/">a.ac.in/tap/placement-history/</a> |
|---|--|-------------|---|-------|---|---|

## 7 FACULTY

| Sl. No | Department                              | Staff Profile   |
|--------|---|---|
| 1      | Biomedical Engineering                  | <a href="https://sahrdaya.ac.in/bme/bme-staff/">https://sahrdaya.ac.in/bme/bme-staff/</a> |
| 2      | Biotechnology                           | <a href="https://sahrdaya.ac.in/bte/bte-staff/">https://sahrdaya.ac.in/bte/bte-staff/</a> |
| 3      | Civil Engineering                       | <a href="https://sahrdaya.ac.in/ce/ce-staff/">https://sahrdaya.ac.in/ce/ce-staff/</a>     |
| 4      | Computer Science & Engineering          | <a href="https://sahrdaya.ac.in/cse/cse-staff/">https://sahrdaya.ac.in/cse/cse-staff/</a> |
| 5      | Electrical & Electronics Engineering    | <a href="https://sahrdaya.ac.in/eee/eee-staff/">https://sahrdaya.ac.in/eee/eee-staff/</a> |
| 6      | Electronics & Communication Engineering | <a href="https://sahrdaya.ac.in/ece/ece-staff/">https://sahrdaya.ac.in/ece/ece-staff/</a> |
| 7      | Applied Science & Humanities            | <a href="https://sahrdaya.ac.in/ash/ash-staff/">https://sahrdaya.ac.in/ash/ash-staff/</a> |

## 8 PROFILE OF THE PRINCIPAL

NAME OF THE PRINCIPAL DR. NIXON KURUVILA  
DATE OF BIRTH 02-02-1976  
UNIQUE ID 1-430987611

### EDUCATIONAL QUALIFICATION

| WORK EXPERIENCE         | TEACHING               | RESEARCH | INDUSTRY | OTHERS |
|-------------------------|------------------------|----------|----------|--------|
|                         | 16                     | 4        |          |        |
| Areas of Specialisation | Mechanical Engineering |          |          |        |
| Courses Taught          | UG                     | PG       |          |        |
|                         | Mechanical Engineering |          |          |        |

### RESEARCH GUIDANCE

| No of papers published             | National | International Journals | Conferences |
|------------------------------------|----------|------------------------|-------------|
|                                    | 3        | 8                      | 8           |
| Research projects guided           | PG       | UG                     | Ph.D        |
|                                    | 5        |                        |             |
| Patents                            |          |                        |             |
| Technology transfer                |          |                        |             |
| Research Publications              |          |                        |             |
| No of Books published with details |          |                        |             |

## 9 FEES

### BTECH

| Details of fee as approved by the State Fee Commission, for the institution | Time Schedule of the payment of fee for the entire programme | No of fee waivers granted with amount and the name of the students.  | Estimated cost of Boarding and Lodging in Hostels           |
|---|--|--|---|
| Annual tuition fees - Rs. 75000/-<br>Caution deposit - Rs 10000/-           | Fees to be paid every year                                   | Tuition fees are waived off for the students selected under the TFW scheme and the meritorious SC/ST/OEC students selected under the merit list by the government. | Monthly lodging charges are 6425/- (including mess charges) |

### MTECH

|                                   |                            |  |                                    |
|-----------------------------------|----------------------------|--|------------------------------------|
| Annual tuition fees - Rs. 35000/- | Fees to be paid every year |  | Monthly lodging charges are 6650/- |
|-----------------------------------|----------------------------|--|------------------------------------|

|                             |  |                          |
|-----------------------------|--|--------------------------|
| Caution deposit - Rs 5000/- |  | (including mess charges) |
|-----------------------------|--|--------------------------|

**Number of Scholarships offered by the institution, duration and amount**

| Sl. No. | Type of Scholarship | Amount   | Eligibility  | Number of Students Receiving Scholarships during 2021-22 |
|---------|---------------------|--|--|--|
| 1       | MANAGEMENT          | 25000/- to 75000/- (BPL students avail 75000/-)      | BPL Students with above 65% marks  | 133  |
| 2       | IDET                | 25000/- Thousand during course                       | IDET Entrance Exam Rank up to 100  | 6  |
| 3       | KCECMA              | 25000/- to 75000/- (BPL students avail 75000/-)      | Based on income & Merit  | 26   |
| 4       | TFW                 | Rs.74000/- per Year                                  | Highest Rank with 6.05 Lakhs income limit  | 90   |
| 5       | SC/OEC/FC/SEBC      | Full Fees  | SC/OEC/FC/SEBC Category Students   | 88   |
| 6       | MCM                 | Rs.25000/- for Day scholar & Rs.30000/- for Hostlers | Minority Students with 50% marks & Income below 2.05 lakhs                           | 241  |
| 7       | CSS                 | Rs.10000/- per Year                                  | 80% marks & Income below 4.05 lakhs  | 7  |
| 8       | PMSS                |  | Prime Minister's Scholarship Scheme For Central Armed Police Forces And Assam Rifles | 2  |

\*Only one scholarship will be granted at a time

**10 ADMISSION**

| YEAR    | No. of seats sanctioned | No. of students admitted under various categories | No of applications received for admission under management quota and admitted |
|---------|-------------------------|---|---|
| 2022-23 | 390+18                  | 380+3   | 628   |
| 2021-22 | 390 + 18                | 357 +9  | 302   |
| 2020-21 | 420 + 72                | 358 + 11  | 538   |

**11 ADMISSION PROCEDURE**

Admissions are conducted on the basis of Kerala Engineering Entrance Examination (KEAM), and on the basis of PCM marks scored in the Plus two examinations  
Admission are being conducted on JEE score also.

Calender for Admission against Management/ Vacant seats

**BTECH**

|   |  |
|---|--|
| Activation of Online Application  | 25 <sup>th</sup> July 2022                       |
| Last date of submission of application                                  | 8 <sup>th</sup> August 2022                      |
| Publication of merit list   | 9 <sup>th</sup> August 2022                      |
| Selection of Admission begins   | 11 <sup>th</sup> August 2022                     |
| Date for acceptance by the candidate                                    | 11 <sup>th</sup> to 15 <sup>th</sup> August 2022 |
| Last date for closing of admission                                      | 25 <sup>th</sup> October 2022                    |
| Starting of Academic session  | 30 <sup>th</sup> October 2022                    |
| The waiting list shall be activated only on the expiry of the main list |  |

The policy of refund of the fee, in case of withdrawal, shall be clearly notified.

#### MTECH

|  |  |
|--|--|
| Activation of Online Application   |  |
| Last date of submission of application   |  |
| Publication of merit list  |  |
| Selection of Admission begins  |  |
| Date for acceptance by the candidate   |  |
| Last date for closing of admission   |  |
| Starting of Academic session   |  |
| The waiting list shall be activated only on the expiry of the main list            |  |
| The policy of refund of the fee, in case of withdrawal, shall be clearly notified. |  |
| AICTE Refund Policy Followed   |  |

#### 12 CRITERION AND WEIGHTAGES FOR ADMISSION

BTECH <https://sahrdaya.ac.in/b-tech-regular/>

MTECH <https://sahrdaya.ac.in/mtech/>

#### 13 LIST OF APPLICANTS

List of candidates whose applications have been received along with percentile/percentages core for each of the qualifying examination in separate categories for open seats. List of candidate who have applied along with percentage and percentile score for management quota seats (merit wise) **APPENDIX A**

#### 14 RESULT OF ADMISSION UNDER MANAGEMENT SEATS/ VACANT SEATS

|   |  |
|---|--|
| Composition of selection team for admission under management quota with the brief profile of members (This information be made available in the public domain after the admission process is over | Based on the KEAM/JEE score and Higher Secondary Examination Score |
|---|--|

#### 15 INFORMATION OF INFRASTRUCTURE AND OTHER RESOURCES AVAILABLE

| INFRASTRUCTURE  | UG                | PG        |
|---|-------------------|-----------|
| NO OF CLASS ROOMS AND SIZE OF EACH                              | 28 (96Sqm)        | 8 (96Sqm) |
| NO OF TUTORIAL ROOMS AND SIZE OF EACH                           | 7 (96Sqm)         | 3 (96Sqm) |
| NO OF LABORATORIES AND SIZE OF EACH                             | 63 (66Sqm)        | 3 (96Sqm) |
| NO OF DRAWING ROOMS WITH CAPACITY                               | 3 (200Sqm)        |           |
| NO OF COMPUTER CENTERS WITH CAPACITY                            | 2 (708 Computers) |           |
| CENTRAL EXAMINATION FACILITY                                    | AVAILABLE         |           |
| BARRIER FREE BUILT ENVIRONMENT FOR DISABLED AND ELDERLY PERSONS | AVAILABLE         |           |
| OCCUPANCY CERTIFICATE   | AVAILABLE         |           |
| FIRE AND SAFETY CERTIFICATE                                     | AVAILABLE         |           |
| HOSTEL FACILITIES   | AVAILABLE         |           |

#### LIBRARY

|   |  |
|---|--|
| NUMBER OF LIBRARY BOOKS/TITLES/JOURNALS AVAILABLE         | <a href="https://sahrdaya.ac.in/central-library/e-resources/">https://sahrdaya.ac.in/central-library/e-resources/</a>  |
| LIST OF ONLINE NATIONAL/INTERNATIONAL JOURNALS SUBSCRIBED | VISIT CENTRAL LIBRARY<br><a href="https://sahrdaya.ac.in/central-library/e-resources/">https://sahrdaya.ac.in/central-library/e-resources/</a>   |
| E-LIBRARY FACILITIES                                      | DIGITAL LIBRARY WITH 56 COMPUTERS ARE AVAILABLE WITH WIFI FACILITY WHERE THE STUDENTS CAN ACCESS THE E-JOURNALS AND DIGITAL RESOURCES.<br>Dspace - A digital repository collect, preserve makes scholarly and professional literature accessible to all students and faculties.<br>NPTEL - Subscription to the NPTEL is done for providing access to various web courses and video lectures. |

#### LABORATORY AND WORKSHOP

|   |   |
|---|---|
| BIOMEDICAL ENGINEERING                  | <a href="https://sahrdaya.ac.in/bme/bme-department-labs/">https://sahrdaya.ac.in/bme/bme-department-labs/</a> |
| BIOTECHNOLOGY                           | <a href="https://sahrdaya.ac.in/bte/department-lab/">https://sahrdaya.ac.in/bte/department-lab/</a>           |
| CIVIL ENGINEERING                       | <a href="https://sahrdaya.ac.in/ce/cedepartmentlabs/">https://sahrdaya.ac.in/ce/cedepartmentlabs/</a>         |
| COMPUTER SCIENCE AND ENGINEERING        | <a href="https://sahrdaya.ac.in/cse/cse-department-labs/">https://sahrdaya.ac.in/cse/cse-department-labs/</a> |
| ELECTRONICS & COMMUNICATION ENGINEERING | <a href="https://sahrdaya.ac.in/ece/ece-department-labs/">https://sahrdaya.ac.in/ece/ece-department-labs/</a> |
| ELECTRICAL & ELECTRONICS ENGINEERING    | <a href="https://sahrdaya.ac.in/eee/eedepartment-labs/">https://sahrdaya.ac.in/eee/eedepartment-labs/</a>     |

#### COMPUTING FACILITIES

|  |                      |
|--|----------------------|
| INTERNET BANDWIDTH                       | 455Mbps              |
| NUMBER AND CONFIGURATION OF SYSTEM       | 708 BRANDED DESKTOPS |
| TOTAL NUMBER OF SYSTEMS CONNECTED BY LAN | 708                  |
| TOTAL NUMBER OF SYSTEMS CONNECTED BY WAN | 708                  |
| MAJOR SOFTWARE PACKAGES AVAILABLE        | 25                   |

#### INNOVATION CELL

IEDC <https://iedcsahrdaya.co.in/>

#### SOCIAL MEDIA CELL

#### COMPLIANCE OF THE NATIONAL ACADEMIC DEPOSITORY (NAD) APPLICABLE TO PGCM/PGDM INSTITUTIONS AND UNIVERSITY DEPARTMENTS

#### LIST OF FACILITIES AVAILABLE

|                                   |   |
|-----------------------------------|---|
| GAMES AND SPORTS FACILITIES       |   |
| PHYSICAL EDUCATION :              | <a href="https://sahrdaya.ac.in/pe/">https://sahrdaya.ac.in/pe/</a>   |
| EXTRA CURRICULAR ACTIVITIES       | <a href="https://sahrdaya.ac.in/category/pe-activities/">https://sahrdaya.ac.in/category/pe-activities/</a> |
| SOCIAL MEDIA CELL                 | <a href="https://sahrdaya.ac.in/nss/">https://sahrdaya.ac.in/nss/</a>                                       |
| SOFT SKILL DEVELOPMENT FACILITIES | <a href="https://sahrdaya.ac.in/tap/programmes/">https://sahrdaya.ac.in/tap/programmes/</a>                 |

#### TEACHING LEARNING PROCESS

|   | UG   |
|---|--|
| Curricula and syllabus for each of the Programmes as approved by the university | BIOMEDICAL ENGINEERING<br><a href="https://sahrdaya.ac.in/bme/bme-syllabus/">https://sahrdaya.ac.in/bme/bme-syllabus/</a><br>BIOTECHNOLOGY<br><a href="https://sahrdaya.ac.in/bte/bte-curriculum-syllabus/">https://sahrdaya.ac.in/bte/bte-curriculum-syllabus/</a><br>CIVIL ENGINEERING<br>LINK<br>COMPUTER SCIENCE AND ENGINEERING<br><a href="https://sahrdaya.ac.in/cse/cse-syllabus/">https://sahrdaya.ac.in/cse/cse-syllabus/</a><br>ELECTRONICS AND COMMUNICATION ENGINEERING<br><a href="https://sahrdaya.ac.in/ece/ece-curriculum-syllabus/">https://sahrdaya.ac.in/ece/ece-curriculum-syllabus/</a><br>ELECTRICAL & ELECTRONICS ENGINEERING<br><a href="https://sahrdaya.ac.in/eee/eee-syllabus/">https://sahrdaya.ac.in/eee/eee-syllabus/</a>   |
|   | <b>PG</b><br>INDUSTRIAL BIOTECHNOLOGY<br><br><a href="https://ktu.edu.in/eu/acd/viewSyllabus.htm?curriculumId=J01C4UozDRZtvZe6zK6Ntd4GFFrrT0uF8sA9SGDSiY%3D&amp;orgId=LsX3m5VcA5n52mKp0ov1Ex5NL74Pz2%2F3H8SP4YUrCoU%3D">https://ktu.edu.in/eu/acd/viewSyllabus.htm?curriculumId=J01C4UozDRZtvZe6zK6Ntd4GFFrrT0uF8sA9SGDSiY%3D&amp;orgId=LsX3m5VcA5n52mKp0ov1Ex5NL74Pz2%2F3H8SP4YUrCoU%3D</a><br>COMPUTER SCIENCE AND TECHNOLOGY<br><br><a href="https://ktu.edu.in/eu/acd/viewSyllabus.htm?curriculumId=cxWmZdYOjhgNTGk26LKVAD4KETWOYUglrmLw6Kc%2BjLM%3D&amp;orgId=0PK9D4i1IUTIdFYOZ8MqPTX%2FzmqvsV3MZKrNM1xmQsc%3D">https://ktu.edu.in/eu/acd/viewSyllabus.htm?curriculumId=cxWmZdYOjhgNTGk26LKVAD4KETWOYUglrmLw6Kc%2BjLM%3D&amp;orgId=0PK9D4i1IUTIdFYOZ8MqPTX%2FzmqvsV3MZKrNM1xmQsc%3D</a><br>EMBEDDED SYSTEMS |

|  |   |
|--|---|
|  | <a href="https://ktu.edu.in/eu/acd/viewSyllabus.htm?curriculumId=hf9mqfPdYCHt%2FmuUxaJzPy72szzwr9W3kbQjMiGIsY%3D&amp;orgId=5LGLLFIEalICMiD%2BfdkTkQ0NuQLzRyh0GeemMgdmE7A%3D">https://ktu.edu.in/eu/acd/viewSyllabus.htm?curriculumId=hf9mqfPdYCHt%2FmuUxaJzPy72szzwr9W3kbQjMiGIsY%3D&amp;orgId=5LGLLFIEalICMiD%2BfdkTkQ0NuQLzRyh0GeemMgdmE7A%3D</a> |
| Academic Calender of the University  | <a href="https://ktu.edu.in/eu/acd/academicRegulationsCalendar.htm">https://ktu.edu.in/eu/acd/academicRegulationsCalendar.htm</a>   |
| Academic time table with the name of the faculty members handling the course | Details availale in the campus software - LINWAYS   |
| Teaching load of each faculty  | Details availale in the campus software - LINWAYS   |
| Internal Continous Evaluation System and place                               |   |
| Student's assessment of faculty, System in place                             | Feedback from the students is taken from time to time   |

#### POST GRADUATE COURSES

|   |   |   |
|---|---|---|
| TITLE OF THE COURSE   | 1   | ELECTRONICS AND COMMUNICATION ENGINEERING<br>EMBEDDED SYSTEMS |
|   | 2   | COMPUTER SCIENCE AND ENGINEERING                              |
|   | 3   | BIOTECHNOLOGY<br>INDUSTRIAL BIOTECHNOLOGY                     |
| CURRICULA AND SYLLABI                                       | <a href="https://ktu.edu.in/eu/acd/viewCurriculum.htm?clusterId=dD1L%2FOzSV%2B6%2FbUTRSUUD64MaA9HARcTvkcFv0TqEy6k%3D&amp;programId=wg6nwtJSoZiY1CbqTcU35Ak5d5V5znM%2BEsUodweiBgE%3D">https://ktu.edu.in/eu/acd/viewCurriculum.htm?clusterId=dD1L%2FOzSV%2B6%2FbUTRSUUD64MaA9HARcTvkcFv0TqEy6k%3D&amp;programId=wg6nwtJSoZiY1CbqTcU35Ak5d5V5znM%2BEsUodweiBgE%3D</a> |   |
| LABORATORY FACILITIES EXCLUSIVE TO THE POST GRADUATE COURSE | AVAILABLE   |   |

#### ACCREDITATION DETAILS

##### NBA Accreditation Status

|   |  |  |
|---|--|--|
| 1 | Name/ List of Programmes/ Courses Accredited | 1. BIOMEDICAL ENGINEERING<br>2. BIOTECHNOLOGY<br>3. CIVIL ENGINEERING<br>4. COMPUTER SCIENCE AND ENGINEERING |
| 2 | Applied for Accreditation                    |  |
|   | A. Applied but Visit not happened            | Nil  |
|   | B. Visit happened but result awaited         | Nil  |
| 3 | List of programmes/ courses Not Applied      | 1. ELECTRONCIS & COMMUNICATION ENGINEERING<br>2. ELECTRICAL & ELECTRONICS ENGINEERING                        |

##### NAAC Accreditation Status

|   |   |  |
|---|---|--|
| 1 | Accredited                              | B++ (SCORE 2.91) valid till March 2025 |
| 2 | Applied for Accreditation               | Not Applicable                         |
|   | A. Applied but Visit not happened       | Not Applicable                         |
|   | B. Visit happened but result awaited    | Not Applicable                         |
| 3 | List of programmes/ courses Not Applied | Not Applicable                         |

#### 16 ENROLLMENT OF STUDENTS IN THE LAST 3 YEARS

|                  | 2020-21                | 2021-22 | 2022-23 |    |
|------------------|------------------------|---------|---------|----|
| <b>PROGRAMME</b> |                        |         |         |    |
| <b>B. TECH</b>   |                        |         |         |    |
| 1                | BIOMEDICAL ENGINEERING | 67      | 61      | 61 |

|               |   |     |     |     |  |
|---------------|---|-----|-----|-----|--|
| 2             | BIOTECHNOLOGY   | 59  | 62  | 63  |  |
| 3             | CIVIL ENGINEERING   | 25  | 22  | 10  |  |
| 4             | COMPUTER SCIENCE AND ENGINEERING                            | 132 | 126 | 160 |  |
| 5             | ELECTRONICS AND COMMUNICATION ENGINEERING                   | 56  | 63  | 64  |  |
| 6             | ELECTRICAL & ELECTRONICS ENGINEERING                        | 19  | 23  | 32  |  |
| <b>M.TECH</b> |   |     |     |     |  |
| 1             | ELECTRONICS AND COMMUNICATION ENGINEERING -EMBEDDED SYSTEMS | 3   | 3   | 1   |  |
| 2             | COMPUTER SCIENCE AND ENGINEERING                            | 5   | 4   | 1   |  |
| 3             | BIOTECHNOLOGY - INDUSTRIAL BIOTECHNOLOGY                    | 3   | 2   | 1   |  |

#### 17 LIST OF RESEARCH PROJECTS / CONSULTANCY WORKS

|  |   |
|--|---|
| NUMBER OF PROJECTS CARRIED OUT, FUNDING AGENCY, GRANT RECEIVED                     | <a href="https://sahrdaya.ac.in/rdc/research-grants/">https://sahrdaya.ac.in/rdc/research-grants/</a>             |
| PUBLICATIONS (if any) OUT OF RESEARCH IN LAST THREE YEARS OUT OF MASTER'S PROJECTS | <a href="https://sahrdaya.ac.in/rdc/research-publications/">https://sahrdaya.ac.in/rdc/research-publications/</a> |
| INDUSTRY LINKAGES  | <a href="https://sahrdaya.ac.in/iic/">https://sahrdaya.ac.in/iic/</a>   |
| MOUs WITH INDUSTRIES (minimum 3)   | <a href="https://sahrdaya.ac.in/mous/">https://sahrdaya.ac.in/mous/</a>   |

#### 18 LOA and Subsequent EOA till the current Academic Year

|                |   |
|----------------|---|
| 2019-20        | <a href="https://www.sahrdaya.ac.in/wp-content/uploads/2020/03/EOA_Report_2019-20-6.pdf">https://www.sahrdaya.ac.in/wp-content/uploads/2020/03/EOA_Report_2019-20-6.pdf</a>           |
| 2020-21        | <a href="https://www.sahrdaya.ac.in/wp-content/uploads/2020/07/AICTE-20-21.pdf">https://www.sahrdaya.ac.in/wp-content/uploads/2020/07/AICTE-20-21.pdf</a>                             |
| 2021-22        | <a href="https://www.sahrdaya.ac.in/wp-content/uploads/2021/10/EOA_Report_21-22_SAHRDAYA.pdf">https://www.sahrdaya.ac.in/wp-content/uploads/2021/10/EOA_Report_21-22_SAHRDAYA.pdf</a> |
| Previous years | <a href="https://sahrdaya.ac.in/approval-letter/">https://sahrdaya.ac.in/approval-letter/</a>   |

#### 19 ACCOUNTED AUDITED STATEMENT FOR THE LAST THREE YEARS

|         |   |
|---------|---|
| 2018-19 | <a href="https://www.sahrdaya.ac.in/wp-content/uploads/2020/09/2018-19-BS-AND-IE-.pdf">https://www.sahrdaya.ac.in/wp-content/uploads/2020/09/2018-19-BS-AND-IE-.pdf</a>   |
| 2019-20 | <a href="https://www.sahrdaya.ac.in/wp-content/uploads/2021/04/AUDITED-STATEMENT-FOR-THE-YEAR-2019-20-SCET.pdf">https://www.sahrdaya.ac.in/wp-content/uploads/2021/04/AUDITED-STATEMENT-FOR-THE-YEAR-2019-20-SCET.pdf</a> |
| 2020-21 | <a href="https://www.sahrdaya.ac.in/wp-content/uploads/2021/12/AUDITED-STATEMENT-2020-21.pdf">https://www.sahrdaya.ac.in/wp-content/uploads/2021/12/AUDITED-STATEMENT-2020-21.pdf</a>                                     |

#### 20 BEST PRACTICES ADOPTED

|   |   |
|---|---|
| 1 | <p><b>Project-based Learning</b></p> <p><b>Objectives of the Practice :</b><br/> To encourage the students to have the experience of applying the theory they have learned into projects, thereby making them industry deployable and also creating an interest in entrepreneurship<br/> Students also get interested to undergo industrial training and internships. This also gives motivation to students to do additional practicals through virtual labs. Students also learn to work in groups and share ideas.<br/> Sponsored Labs / Industry perspective projects are set up in collaboration with Industry to execute the latest projects and enable students to experience the latest software and equipment.<br/> This method provides detailed learning to students and also reduces them to initiate a project on the basis of what they have learned in the classroom.<br/> The results show how the methodology provides three main advantages:<br/> (1) It facilitates training in technical, personal, and contextual competencies;<br/> (2) Real problems in the professional sphere are dealt with;<br/> (3) Collaborative learning is facilitated through the integration of teaching and research.</p> |
|---|---|



### **The Context :**

Sahrdaya is a well-established institution with a marvelous track record of great achievements in academic fields and in presenting and securing innumerable prize-winning student projects at the National and State levels, establishing itself in engineering education for the last 17 years.

Very unique to Sahrdaya College, we have created an Innovation friendly eco-system on this campus which is instrumental for our students in securing many international and national level prizes first and second, in very highly reputed competitions through which the students have proven their mettle, skills and competency in engineering and allied areas.

### **The Practice :**

More practical training and application skills for engineering students are the need of the day. Industries, in general, are complaining about the lack of practical training and teamwork in fresh engineering graduates.

More entrepreneurs are also the need of the day to fulfill the dream of our Honorable Prime Minister “ Make in India”.

In this context, project-based learning will enhance the application skills of engineering students. Therefore Student Projects are highly relevant as they help students to acquire requisite skills that they need to demonstrate after the completion of their graduation.

We focus on project-based learning of students from the early stage of Engineering education. Starting from semester-1, Sahrdaya College of Engineering & Technology provides academic rigor to reach up to industry-driven projects. The students involved in projects perform better on various platforms such as academic, competition and industry suitability. It has been found that the students sincerely engaged in projects performed exceptionally well at the national and international levels which made Sahrdaya College of Engineering & Technology in the top institute for engineering in Kerala. In the minor project, student works on projects of their interest while in a major project the students are expected to work on projects with respect to industry expectation for 4-6 months. These projects make the student industry deployable.

Project-based learning encourages student competencies to go beyond subject knowledge, prepare and challenge the student to direct their own learning, solve problems of academic significance and explore beyond the classroom. Therefore Student Projects at the college Level are highly relevant as they help students to acquire requisite skills that they need to demonstrate after the completion of their graduation.

### **Evidence of Success :**

Sahrdaya insists all the students do projects every semester starting from the first semester, in addition to the mandatory curriculum insisted on projects.

Students do the projects in groups under the guidance of faculty members applying the theory they have learned. Project exhibitions are organized in every semester, and the best projects are given cash prizes at the end of every semester. The entire staff and students visit the project exhibition and give creative suggestions for improvement.

The students are encouraged to participate in all state and national level project competitions. The winners are honored in the general gathering of staff and students.

Students are also encouraged to submit their projects for funding from different agencies, and many student projects are getting funding and grants. The talented and interested students are given hands-on training in Industry sponsored training centers on the campus and by external sources.

Additional Skill development certification courses are also offered to the students for improving their technical and soft skills. We also encourage students to do additional practicals beyond the syllabus through virtual labs.

### **A Project Policy handbook is in practice for proper guidance and supports Project-based learning**

The Innovation & Entrepreneurship Development Center (IEDC) and Startup Boot camp of Sahrdaya encourage young entrepreneurs and innovators with their ideas, incubate and fund their products establishing them into professionals.

Few to mention, Biomedical students are back from the Rashtrapathi Bhavan with the national honor of Gandhian Young Technological Innovation Award of Rupees 15 lakh for its humanitarian invention of a high-tech fully automated sanitary bed for the totally crippled and bed-ridden, Computer Science students were the winners of IBS Travel Hackathon 2018 and were awarded Rs.60,000 and also the Biotechnology PG students won Rs.1,00,000 in the Dr. Pradeep P Thevannoor Innovation Awards 2018, Techtrop National Innovation Contest, Malayalam Manorama Yuva Contest, Srishti and many more in National and International level.

To support our team, the institution has come forward with training centers by industry on our campus. GE Healthcare Training center, Sahrdaya - Accenture Innovation Lab and Knowledge & Research Center, IoT Lab.

Recently Kerala Startup Mission (KSUM) sanctioned an amount of 16.61 Lakh as an Idea Fund for 15 Projects and a few ideas selected for industrial mentoring and laboratory support.

Sahrdaya holds **Kerala Startup Mission (KSUM)'s "Exemplary Performance Award"** for Innovation and Entrepreneurship Development Activities" from the Chief Minister of Kerala. In November 2018, Sahrdaya was awarded the **"Entrepreneurship Enabler Award 2018"** from the Electronics and IT Secretary of Govt. of Kerala for the institute's contribution towards the Entrepreneurial Ecosystem system creation in Kerala State.

#### **Problems Encountered and Resources Required**

All students may not get the opportunity to work on industry-specific projects and get hands-on training. Students' chances to For any innovation to take the product shape, there is a need for the availability of resources and facilities. Our institute has taken an It is therefore envisaged that the students will get together to utilize the facilities provided to interact with industry and explore

## **2 Implementation of Outcome-Based Education**

#### **Objectives of the Practice:**

Our institution takes the effort to ensure graduating engineers from all programs demonstrate expected knowledge, skills and attitude leading them to enhance their employability skills and meet the global demands in technology.

Program Outcomes(PO) as defined by NBA. The curriculum gaps are plugged through projects, additional labs, add-on courses, industry connect, etc. other than the curriculum and evaluated systematically through different assessment tools.

All activities on campus (academic, activities beyond the curriculum, co-curricular and extra-curricular) were focused on developing the POs leading to effective implementation of Outcomes-Based Education (OBE), as it would then lead to global recognition of our graduates and to have a strong role in the society.

#### **The Context :**

Global demand for qualified and qualitative engineering human resources is increasing day by day and the learning process has become dynamic in the current century. A technically strong knowledge-based society is very much needed for a fast developing nation like India.

To meet the challenges and demands of the present and future it is the need of the hour to groom the engineering students to meet the demand and expectations of the country and world. Keeping this in mind and following the norms of the NBA our institution is

A need to define, develop, implement and measure student learning through the attainment of various outcomes: Course Outcomes (COs), Program Outcomes (POs) and Program Specific Outcomes (PSOs). The institution gives importance to technical and non-technical activities in the overall development of our students. With a need to implement OBE, every association of the student is defined and measured as mentioned below:

- Academics is direct through Continuous Assessment tests (CAT), Project-based Learning, Assignments, Seminars, University Exams Quizzes and indirectly through a feedback system from all stakeholders

- Activities beyond curriculum like co-curricular and extra-curricular activities. The campus witnesses the University Level Techfest, National IEDC Summit, Sahrdaya Tedx, and MoUs with notable companies leading to further development and measurement of the

### **The Practice :**

This initiative by the Institution lead to innovations in the classroom by teachers in the delivery methods, innovation by faculty in assessment tools and hence, contributing to the overall development of the student learning, with conscious efforts in developing the expected program outcomes defined by NBA, and hence ensuring our graduates have global recognition. Learning outcomes are statements specifying what learners will know or be able to do as a result of a learning activity. Describe the desired condition –the knowledge, skills or attitudes required to fulfill a need.

The question papers of each course are prepared in such a way that it maps to the course outcomes of the respective subject and six levels of learning – remember, understand, apply, analyze, evaluate and create as per **Bloom's Taxonomy**. For a better teaching-learning process evaluation, it is always preferred to adopt a method to evaluate the quality of the question paper a teacher has set. The output of a good quality question paper identifies, how many of our students have understood the concepts we have taught and also how well they are able to apply them. The process of question paper quality checking is implemented in the academic year 2020-2021. The details are attached. The continuous assessment of the students is carried out by calculating the marks of students in internal exams and assignments. After each internal exam faculty of each course is publishing the result analysis and it is being compared with that of the previous exam. Based on that concerned faculty is supposed to submit the action plan to take. This improved competency of the students resulted in enhanced student performance both when on campus and after graduation as our alumni.

We would like to add that this journey of embracing OBE was a collective effort by all stakeholders, both direct and indirect. The initial learning was from the series of training programs conducted by the NBA. This was then followed by a series of brainstorming sessions to comprehend and implement the processes of OBE. The academic leaders were able to perform with unconditional support from management.

The institute is having well-qualified faculty and state-of-the-art workshops and engineering laboratories to impart the best teaching. The faculty are trained to carry our Outcome-based Education (OBE) based teaching methodology where conducive teaching-learning practices were implemented.

The lectures are designed to provide more interactive sessions of learning with 50% blackboard teaching, 25% Powerpoint, 15% student interactive method and 10% assignments. All the faculty members are encouraged to appear for online certification courses in their respective teaching subjects conducted by NPTEL and Pedagogy principles in OBE based education system. Institute is one of the best NPTEL local chapters in the state.

To conclude, there were no constraints or hurdles in this path of adopting OBE. In addition, all academic leaders have willingly shared this journey and learning experience on various platforms, to help other institutions of higher education to grow and contribute to the progress of the nation. Few are listed below:

- Students will understand what is expected of them and teachers will know what they need to teach during the course.
- OBE does not specify a specific method of instruction, leaving instructors free to teach their students using any method. Instructors will also be able to recognize diversity among students by using various teaching and assessment techniques during their classes.
- Student involvement in the classroom is a key part of OBE. Students are expected to do their own learning so that they gain a full understanding of the material. Increased student involvement allows students to feel responsible for their own learning, and they should learn more through this individual learning.
- Lecture Notes are preferred over the subject materials and students are encouraged to use the library for reference to corresponding subjects.
- Study Group Activities are conducted where students have role-based tasks, Quizzes and other opportunities to explore their passion.

### **Evidence of Success**

Focused efforts by faculty in truly embracing OBE, happened through small innovations in the teaching-learning process, innovations in assessment tools and ensuring that every student has the expected knowledge, skills and attitude. Faculty contribution towards successful implementation of OBE is reflected in enhanced student performance.

A few parameters that are considered as evidence towards successful implementation of OBE through faculty contribution are:

Enhanced quality of projects, Enhanced number of students attending online courses, Enhanced professional body activities, Enhanced number of awards secured by students in National and International project competitions, activities Improved performance in cultural and sports contests held in-campus and outside campus, Enhanced on-campus placements, Enhanced off-campus placements, Improvement in the average and highest pay package offered, Marginal improvement in a number of successful entrepreneurs.

The above evidence of improvement in student performance can be attributed purely to faculty contribution ineffective implementation of OBE.

This effective implementation of OBE, leading to improved student performance through faculty contribution eventually resulted in 90% Placements for 2020 & 2021 pass outs, students getting GATE Qualified, Project grants, students getting admitted to premier institutions for higher studies, becoming entrepreneurs and the results also have proved that the effectiveness of this method.

### **Problems Encountered and Resources Required**

#### **Problems Encountered**

The outcome-based education identifies the gaps in the attainment of course outcomes through feedback from different stakeholders. One of the major concerns is that feedback data is related to conducting Add-on courses related to each course. However, as per the present curriculum, the time period for the provision of Add-on courses are very much limited. Also, the familiarization with practices in the industry is identified as another important parameter for attaining the course outcome. Hence adequate time shall be allocated in the curriculum to address these requirements for the effective implementation of outcome-based education.

Apart from this, another problem encountered is the computation of attainment of course outcome based on the End semester results. The end semester results presently represent the cumulative marks from Continuous Internal Evaluation and the End Semester examination.

Based on this calculation of attainment of individual course outcomes it becomes unclear. Hence there shall be an enhanced methodology specified in the curriculum supporting the outcome-based education, which also helps in proper quantification of attainment of course outcomes.