SAHRDAYA
COLLEGE OF ENGINEERING & TECHNOLOGY
AUTONOMOUS
KODAKARA - THRISSUR (DT) - KERALA - INDIA - 680684

MANDATORY DISCLOSURE

AS ON JULY 1 2024

AICTE FILE NO.	F.No. South-West/1-43660370912/2024/EOA
AICTE P – ID	1-6023211
Date and Period of Last Approval	22 MAY 2024, 2024-2027
NAME OF THE INSTITUION	
NAME OF THE INSTITUION	SAHRDAYA COLLEGE OF ENGINEERING & TECHNOLOGY
ADDRESS OF THE INSTITUTION	P B NO. 17, KODAKARA, THRISSUR - 680684, KERALA PHONE: 0480-2726630, 2759275 EMAIL : info@sahrdaya.ac.in, info.sahrdaya.ac.in
WEBSITE	www.sahrdaya.ac.in
CITY & PINCODE	THRISSUR – 680684
STATE	KERALA STATE
Longitude & Latitude	76.3056 & 10.3719
Office Hours of the Institution	8.45 AM to 4.30 PM
Academic Hours	09.00 AM to 4.15 PM
Nearest Railway Station	Irinjalakuda – 5 Kilometeres
Nearest Airport	Nedumbasesry – Cochin 25 Kilimeters
NAME AND ADDRESS OF THE TRUST/SOCIETY /COMPANY AND THE TRUSTEES:	
Name of the organization running the Institution	Irinjalakuda Diocesan Educational Trust–(IDET)

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Type of the organization	Trust
Address of the Organization	Catholic Bishops House, Irinjalakuda, Manavalassery Village, Mukundapuram Taluk, Thrissur, Kerala 680 121 www.irinjalakudadiocese.com
Registered with	Registration Department Of Kerala on 23/07/2001
Name and address of the Principal/ Director	
Name and address of the Principal	DR. NIXON KURUVILA
Address of the Principal	Kolapran House Kodakara, 680684
Phone Number	9446229344
Email Address	principal@sahrdaya.ac.in , nixonkuruvila@gmail.com
Name and address of the Director	Dr. Leon Ittiachen
Address of the Director	22/100, "Merlin", Nellikunnu, Thrissur East P.O Thrissur 580005
Phone Number	+919846033233
Email Address	director@sahrdaya.ac.in, leon.ittiachen@gmail.com
Name of Affiliating University	
NAME OF THE AFFILIATING UNIVERSITY	APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
ADDRESS	CET CAMPUS, THIRUVANANTHAPURAM, KERALA - 695016
WEBSITE	www.ktu.edu.in
Latest affiliation period	2024-25
GOVERNANCE	
Governing Body	https://sahrdaya.ac.in/governing-body/
Frequency of Meeting	Once in 6 Months
Academic Advisory Body	https://sahrdaya.ac.in/academic-council-autonomous/
Frequency of meetings	Once in a year

Mechanism,/Norms and procedure for democratic/ good governance	Board of trustees and Academic Advisory committee manages the governance.
Student feedback on institutional Governance/ Faculty performance	Available in the institution
Organisational Chart	https://sahrdaya.ac.in/management/
Nature and extent of involvement of faculty and students in the academic affairs/improvements	Department meetings are held frequently to assess the progress and discuss improvements if any. Students give feedback in the prescribed formats
Grievance Redressal mechanism for faculty, staff and students	https://sahrdaya.ac.in/grievance/
Establishment of Anti-ragging Committee	https://sahrdaya.ac.in/anti-ragging-cell/
Establishment of online grievance redressal system	https://sahrdaya.ac.in/grievance/
Establishment of Grievance Redressal Committee inthe institution and appointment of OMBUDSMANby the university	https://sahrdaya.ac.in/grievance/
Establishment of Committee for SC/ST	https://sahrdaya.ac.in/sc-st-committee/
Internal Quality Assurance Cell	https://sahrdaya.ac.in/iqac/iqac-committee/

PROGRAMMES
UNDERGRADUATE

Sl. No	Programmes approved by AICTE	Status of Accreditation	Number of seats	Tution fees	Duration of Programme (In Year)	Placement details
1	BIOMEDICAL ENGINEERING	Accredited	60	100500	4	https://sahrdaya.ac.in/tap/placement-history/
2	BIOTECHNOLOGY	Accredited	60	100500	4	
3	CIVIL ENGINEERING	Accredited	30	100500	4	

4	COMPUTER SCIENCE & ENGINEERING	Accredited	240	100500	4	
5	ELECTRONICS AND COMMUNICATION ENGINEERING	Accredited	60	100500	4	
6	ELECTRICAL AND ELECTRONICS ENGINEERING	Not Applied	30	100500	4	
POST GRADUATE						
Sl. No	Programmes approved by AICTE	Status of Accreditation	Number of seats	Tuition fees (Per Year)	Duration of Programme (In Year)	
7	INDUSTRIAL BIOTECHNOLOGY	Not Applied	6	70000	2	https://sahrdaya.ac.in/tap/placement-history/
8	COMPUTER SCIENCE & ENGINEERING	Not Applied	6	70000	2	
9	EMBEDDED SYSTEMS	Not Applied	6	70000	2	

FACULTY		
Sl No	DEPARTMENT	STAFF PROFILE
1	Biomedical Engineering	https://sahrdaya.ac.in/bme/bme-staff/
2	Biotechnology	https://sahrdaya.ac.in/bte/bte-staff/
3	Civil Engineering	https://sahrdaya.ac.in/ce/ce-staff/
4	Computer Science & Engineering	https://sahrdaya.ac.in/cse/cse-staff/
5	Electrical & Electronics Engineering	https://sahrdaya.ac.in/eee/eee-staff/
6	Electronics & Communication Engineering	https://sahrdaya.ac.in/ece/ece-staff/

7	Applied Science & Humanities	https://sahrdaya.ac.in/ash/ash-staff/

8 PROFILE OF THE PRINCIPAL

NAME OF THE PRINCIPAL	:	DR. NIXON KURUVILA				
DATE OF BIRTH	:	02/02/1976				
AICTE UNIQUE ID	:	1-430987611				
EDUCATIONAL QUALIFICATION	:	B.TECH, M.TECH, PhD				
WORK EXPERIENCE	:	TEACHING	RESEARCH	INDUSTRY	OTHERS	
		21	4			
AREA OF SPECIALIZATION	:	MECHANICAL ENGINEERING				
RESEARCH GUIDENCE						
NO. OF PAPERS PUBLISHED / RESEARCH PUBLICATIONS	:	NATIONAL	INTERNATIONAL JOURNELS	CONFERENCES		
		3	8	8		
RESEARCH PROJECTS GUIDED	:	PG	UG	PhD		
		5				
PATENTS	:					
TECHNOLOGY TRANSFER	:					
RESEARCH PUBLICATIONS	:					
NUMBER OF BOOKS PUBLISHED WITH DETAILS	:					

9. FEES

B. Tech			
Details of fee as approved by the State Fee Commission, for the institution	**Time Schedule of the payment of fee for th e entire programme**	**No of fee waivers granted with amount and the name of the students.**	**Estimated cost of Boarding and Lodging in Hostels**
Annual tution fees - Rs. 100500/- Caution deposit - Rs 10000/-	Fees to be paid every year	Tution fees are waived off for the students selected under the TFW scheme and the meritorous SC/ST/OEC students selected under the merit list by the government.	Monthly lodging charges are 6800/- (including mess charges)

M. Tech

Annual tution fees – Rs 70000. /- Caution deposit - Rs 5000/-	**Fees to be paid every year**	Tution fees are waived off for the students selected under the TFW scheme and the meritorous SC/ST/OEC students selected under the merit list by the government.	Monthly lodging charges are 6800/- (including mess charges)

10. Number of Scholarships Offered by The Institution

Sl. No.	Type of Scholarship	Amount	Eligibility	Number of Students Receiving Scholarships during 2023-24
1	MANAGEMENT	25000/- to 75000/- (BPL students avail 75000/-)	BPL Students with above 65% marks	70
2	KCECMA	25000/- to 75000/- (BPL students avail 75000/-)	Based on income & Merit	14
3	TFW	Rs.74000/- per Year	Highest Rank with 6.05 Lakhs income limit	15
4	SC/OEC/FC/SEBC	Full Fees	SC/OEC/FC/SEBC Category Students	36
5	MCM	Rs.25000/- for Day scholar & Rs.30000/- for Hostlers	Minority Students with 50% marks & Income below 2.05 lakhs	85
6	CSS	Rs.10000/- per Year	80% marks & Income below 4.05 lakhs	6

7	PMSS	2500 per month for boys & 3500 per month for girls	Prime Minister's Scholarship Scheme For Central Armed Police Forces And Assam Rifles	0
8	CHMS	13000/- per Year for hostellers 7000/- per Year for Day Scholars	Should belong to Muslim, Christian all category, Sikh, Jain, Parsi, Budha community and should be a native of Kerala. Should be a GIRL student studying for Graduation or Higher courses in Govt./ Aided Institution.	6

*Only one scholarship will be granted at a time

Calendar for Admission against management / vacant seats

Year	No. of Seats Sanctioned	No. of Students admitted under various categories	No of applications received for admission under management quota and admitted
2024-25	480+18	494+6	684
2023-24	420+18	378+7	624
2022-23	390+18	366+3	536

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.

Calendar for Admission against Management

B. Tech

Activation of Online Application	29 th July 2024
Last date of submission of application	5 th August 2024
Publication of merit list	4th August 2024
Selection of Admission begins	8 th August 2024
Date for acceptance by the candidate	8 th to 12 th August 2024
Last date for closing of admission	23rd October 2024
Starting of Academic session	23rd October 2024
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.	

M. Tech

Activation of Online Application	*25 th july 2024*
Last date of submission of application	12th August 2024
Publication of merit list	21 st august 2024
Selection of Admission begins	24 th august 2024
Date for acceptance by the candidate	*7 th september 2024*
Last date for closing of admission	*11 th september 2024*
Starting of Academic session	13 th september 2024
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

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

INFRASTRUCTURE	UG	PG
NO OF CLASS ROOMS AND SIZE OF EACH	34 (3524Sqm)	8 (768 Sqm)
NO OF TUTORIAL ROOMS AND SIZE OF EACH	8 (681 sqm)	5 (521 Sqm)
NO OF LABORATORIES AND SIZE OF EACH	48 (4568 Sqm)	12 (941 sqm)
NO OF DRAWING ROOMS WITH CAPACITY	3 (200Sqm)	

NO OF COMPUTER CENTERS WITH CAPACITY	2 (735 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	https://sahrdaya.ac.in/central-library/resources/
LIST OF ONLINE NATIONAL/ INTERNATIONAL JOURNALS SUBSCRIBED	VISIT CENTRAL LIBRARY https://sahrdaya.ac.in/central-library/resources/
E-LIBRARY FACILITIES	DIGITAL LIBRARY WITH 56 COMPUTERS ARE AVAILABLE WITH WIFI FACILITY WHERE THE STUDENTS CAN ACCESS THE E-JOURNALS AND DIGITAL RESOURCES. Dspace - A digital repository collect, preserve makes scholarly and professional literature accessible to all students and faculties. NPTEL - Subscription to the NPTEL is done for providing access to various web courses and video lectures.

LABORATORY AND WORKSHOP

BIOMEDICAL ENGINEERING	https://sahrdaya.ac.in/bme/bme-department-labs/
BIOTECHNOLOGY	https://sahrdaya.ac.in/bte/department-lab/
CIVIL ENGINEERING	https://sahrdaya.ac.in/ce/cedepartmentlabs/
COMPUTER SCIENCE AND ENGINEERING	https://sahrdaya.ac.in/cse/cse-department-labs/
ELECTRONICS & COMMUNICATION ENGINEERING	https://sahrdaya.ac.in/ece/ece-department-labs/
ELECTRICAL & ELECTRONICS ENGINEERING	https://sahrdaya.ac.in/eee/eeedepartment-labs/

COMPUTATIONAL FACILITIES

INTERNET BANDWIDTH	700 Mbps
NUMBER AND CONFIGURATION OF SYSTEM	735 BRANDED DESKTOPS
TOTAL NUMBER OF SYSTEMS CONNECTED BY LAN	735

TOTAL NUMBER OF SYSTEMS CONNECTED BY WAN	735
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	https://sahrdaya.ac.in/pe/
EXTRA CURRICULAR ACTIVITIES SOCIAL MEDIA CELL	https://sahrdaya.ac.in/pe/
SOFT SKILL DEVELOPMENT FACILITIES	https://sahrdaya.ac.in/category/pe-

TEACHING LEARNING PROCESS

Curriculum and syllabus for each of the Programmes as approved by the university	**UG** BIOMEDICAL ENGINEERING https://sahrdaya.ac.in/btech-bm-autonomous-curriculum/ BIOTECHNOLOGY https://sahrdaya.ac.in/btech-bt-autonomous-curriculum/ CIVIL ENGINEERING https://sahrdaya.ac.in/btech-ce-autonomous-curriculum/

	COMPUTER SCIENCE AND ENGINEERING https://sahrdaya.ac.in/btech-cse-autonomous-curriculum/ ELECTRONCIS AND COMMUNICATION ENGINEERING https://sahrdaya.ac.in/btech-ece-autonomous-curriculum/ ELECTRICAL & ELECTRONICS ENGINEERING https://sahrdaya.ac.in/btech-eee-autonomous-curriculum/
	PG
	INDUSTRIAL BIOTECHNOLOGY https://sahrdaya.ac.in/mtech-autonomous-bt-curriculum/ COMPUTER SCIENCE AND TECHNOLOGY https://sahrdaya.ac.in/mtech-autonomous-cse-curriculum/ EMBEDDED SYSTEMS https://sahrdaya.ac.in/mtech-autonomous-es-curriculum/

POST GRADUATE COURSES

TITLE OF THE COURSE	1	ELECTRONICS AND COMMUNICATION ENGINEERING EMBEDDED SYSTEMS
	2	COMPUTER SCIENCE AND ENGINEERING
	3	BIOTECHNOLOGY INDUSTRIAL BIOTECHNOLOGY
CURRICULA AND SYLLABI	https://sahrdaya.ac.in/mtech-autonomous-curriculum-syllabus/	

LABORATORY FACILITIES EXCLUSIVE	AVAILABLE
TO THE POST GRADUATE COURSE	

ACCREDITATION DETAILS

NBA Accreditation Status

1	Name/ List of Programmes/ Courses Accredited	1. BIOMEDICAL ENGINEERING 2. BIOTECHNOLOGY 3. CIVIL ENGINEERING 4. COMPUTER SCIENCE AND ENGINEERING 5. ELECTRONICS & COMMUNICATION 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. 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

	PROGRAMME	2024-25	2023-24	2022-2023
B.TECH				
1	BIOMEDICAL ENGINEERING	**63**	**60**	**63**
2	BIOTECHNOLOGY	61	41	44
3	CIVIL ENGINEERING	24	11	10
4	COMPUTER SCIENCE AND ENGINEERING	251	189	158
5	ELECTRONCIS AND COMMUNICATION ENG.	63	53	62
6	ELECTRICAL & ELECTRONICS ENGINEERING	32	24	29
M. TECH				
1	ELECTRONICS AND COMMUNICATION ENGINEERING - EMBEDDED SYSTEMS	1	2	1
2	COMPUTER SCIENCE AND ENGINEERING	3	2	1
3	BIOTECHNOLOGY - INDUSTRIAL BIOTECHNOLOGY	2	3	1

17 LIST OF

RESEARCH PROJECTS / CONSULTANCY WORKS

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

18 LOA and Subsequent EOA till the current Academic Year

2024-25	https://sahrdaya.ac.in/wp-content/uploads/2024/09/Three-year-approval-1.pdf
2023-24	https://sahrdaya.ac.in/wp-content/uploads/2023/06/EOA-Report-2023-24.pdf
2022-23	https://sahrdaya.ac.in/wp-content/uploads/2023/04/EOA-Report-22-23-1.pdf
Previous years	https://sahrdaya.ac.in/approval -letter/

19 ACCOUNTED AUDITED STATEMENT FOR THE LAST THREE YEARS

2023-24	https://sahrdaya.ac.in/wp-content/uploads/2024/11/audited-statement-final.pdf
2022-23	https://sahrdaya.ac.in/wp-content/uploads/2023/10/bs-in.pdf
2021-22	https://sahrdaya.ac.in/wp-content/uploads/2023/06/2021-22-SCET-BS-IE.pdf

20 BEST PRACTICES ADOPTED

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 Honourable 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 honoured 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 centres 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 Centre (IEDC) and Start-up 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, Techtop 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.