Hearty Welcome to NAAC - PEER Team

Department of Basic Sciences and Humanities

BS&H Team

Miracle Educational Society

Miracle Educational Society Group of Institutions

(Approved by AICTE, New Delhi, and Affiliated to JNTUK, Kakinada)

About Us

- The department of Basic Sciences and Humanities started from the inception of the college in 2009

- The department aims at providing value-based education to the students so as to lay strong and sturdy foundation in all the branches of engineering

- The department handles a mixture of myriad subjects including English, Mathematics, Physics, Chemistry, Environmental Studies, Engineering Mechanics, Engineering Drawing, Professional Ethics and Values and workshops

Department Vision and Mission

Vision

- To Bring intellectual thinking and individuality into students mind which is vital for career across a good range of sciences, mathematics, humanities and technology disciplines

Mission

- Enhance the individual and collective excellence through quality teaching and effective communication in science, engineering and technology

- To inculcate ethical values and promote social responsibility through an innovative learning process in basics sciences and humanities

- To fill the gap between industry and academia

Department Objectives and Outcomes

Objectives

- Develop intellectual thinking, individuality and make them to set a goal in the minds of upcoming engineers
- Improve the over development of the students by providing opportunities to enhance their skills
- Inculcate ethical values and impart social responsibility among students and staff

Outcomes

- Participation in R&D activities like design of real time projects, projects expo, seminar presentations
- Enrichment in student academic backgrounds in Mathematics, Science, Physics, intellectual abilities and humanities
- Representation in all the interdepartmental and social related activities

Department Historical Note

- **MRCL, VZM : Year 2009**

- **BS&H Dept. : Year 2009**

- Initially, UG program in EEE, Mech, ECE, CSE, then another UG program was added in Civil 2013

- Enhancement of annual student intake in B.Tech, from 60 to 120 since the academic year 2010-2011

Actual Student Intake of all UG Programs Offered					
Branch	**Civil**	**EEE**	**Mech**	**ECE**	**CSE**
2009-2013	-	60	60	60	60
2013-2014	60	120	120	120	120
2014-2019	60	120	120	120	120
2019-2020	30	60	120	90	120

Admission Procedure

- **70%** of regular admissions are filled through **EAMCET** exam conducted by the state government
- **30%** of admissions are **B-Category** seats, for the students qualified in national level entrance exam like **JEE** and for **NRI** students based on merit as per **APSCHE** norms
- Lateral admissions are filled through **ECET** exam conducted by the state government

Rank Wise Admissions			
Category	**Year**	**Low**	**High**
EAMCET Rank	2014-15	ECE- 24865	CIV- 189361
EAMCET Rank	2015-16	ECE-16186	CIV-185215
EAMCET Rank	2016-17	CSE-14790	CSE-148000
EAMCET Rank	2017-18	MECH-11588	CSE-140961
EAMCET Rank	2018-19	CSE-22673	CSE-128838
EAMCET Rank	2019-20	CSE-18457	ECE-129624

Department Strengths

- The Department has qualified, motivated and competent faculty with a blend of high experience , young and energetic dynamism
- The Laboratories are fully equipped with sophisticated equipment as per the norms of AICTE
- With the aid of IQAC, the Department encourages students to participate in tech talks by Industry Experts
- The Teaching and learning process is strengthened with regular feed back from students
- Class tests, assignments, regular tutorial, study hours and remedial classes are arranged, whenever it is required
- The Department encourages the students to participate in all the Interdepartmental activities

Qualified, Motivated and Experience Faculty

Planned Activities

ICT based Teaching - Learning Process

Disciplined Environment

Infrastructure

Department Faculty Strength

30	Total Faculty in the Department

04	08	16	02
Professors	Assoc. Professors	Asst. Professors	Professors

Commitment Of Faculty

- Punctuality

- Sticking to the Lesson Plan

- Conducting Laboratory Experiments with Commitment

- Involvement in Administrative Works

- Commitment in the Additional Duties

- Evaluation of Papers

- Effort to Grow Professionally

- Student Progression

Decentralization and Delegation

- Head of the Department in coordination with Asst. HOD, while allocating the workload appoints the Faculty In charge for each class/section

- HOD with Faculty coordinators conducts meeting with each class separately and elects a class representative and assigns duties those CR's related to all departmental activities

- Senior Lady faculty coordinators will be taking care of Girl student grievances

- Senior Gent faculty coordinators will be monitoring class work and disciplinary activities

- Lab Technicians are assigned to monitor dress code, send ecap attendance messages to parents

- Class representatives - one boy, one girl student will monitor class work, assignment submissions, syllabus status updation, irregular students, indiscipline students and inform to Faculty coordinator and HOD
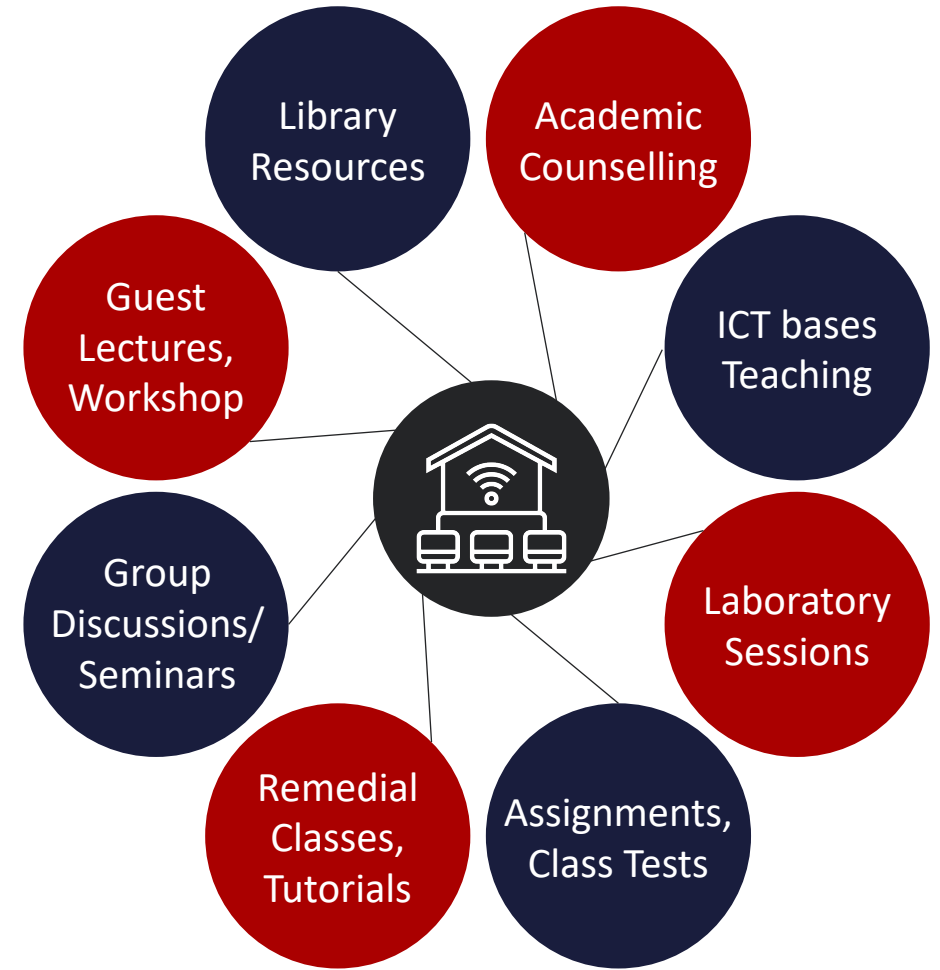
Transparency

- By considering the area of interest and research work, the Workload allotment will be managed during the staff meeting

- Development activities proposal, academic activities and interdepartmental activity proposals are processed by considering the syllabus status and academic calendar during the staff meetings

- Budget proposal for lab requirements, development activities and policy decisions are done only after thorough discussions with senior faculty members in department staff meeting

- Annual Performance Appraisal is done as per institutional policies and the information will be informed/emailed to each staff member of the department

- Transparency is ensured in evaluating student's academic performance

Teaching - Learning Process

- Chalk-Talk method, online mode, employ ICT of e-class room to deliver subject knowledge
- Laboratory sessions to innovate in diverse technical areas
- Assignments are given to practice and to demonstrate the lectures
- Class tests for periodical assessment
- Remedial classes for slow learners and provide extra guidance
- Group Discussions/Seminars to enhance communication skills
- Guest Lectures to learn recent trends in various areas
- Department Library for Easy access, resource sharing
- Academic Counseling to understand the difficulties of the student and provide proper guidance

Library Resources

Academic Counselling

Guest Lectures, Workshop

ICT bases Teaching

Group Discussions/ Seminars

Laboratory Sessions

Remedial Classes, Tutorials

Assignments, Class Tests

Innovation in Teaching

- Special training is provided to slow learners by conducting Remedial Classes

- Self learning modules are provided to students through websites like, Swayam NPTEL courses and lecture videos

- Online classes with quiz

- Use of virtual labs

Syllabus

- Five-unit prescribed syllabus is completed as per the curriculum

- 4+1 periods are allotted for each theory subject and 3 periods for lab subject to cover topics which are prescribed in the syllabus to have awareness of current state of-the-art technology

- Assignment questions are provided for each unit of the subject

- Subjects like Communication Skills, Constitution of India, Environmental Science, Human Ethics are taught as a part of the curriculum

- Advanced concepts and lab experiments beyond syllabus are covered

- Separate periods are allocated for sports and library

Evaluation Procedure

- Internal marks are calculated with 80% weightage for best of two mid marks and 20% weightage for the other mid exam

- Internal Assessment (By the Dept.)
  - Theory : 25 Marks per Subject+Assignment(5M)
  - Lab : 25 Marks per Lab (based on day to day performance)

- External Assessment (By the university)
  - Theory : 70 Marks per Subject
  - Lab : 50 Marks per Lab

- Students must attend and complete all the Assignments and End exams

- Students must have 75% attendance to apply for the year end exams

- Exam paper is based on set system. Evaluation of the mid exam papers would be done within 3 days from the date of the examination

- Corrected answer scripts are verified by students, selected papers by HOD. These would be submitted in the exam cell

Students on Roles

Branch/Year	2014- 15	2015-16	2016-17	2017-18	2018-19	2019-20
Civil	8	8	14	7	4	3
EEE	10	13	5	4	1	4
Mech	76	56	16	26	4	4
ECE	52	35	35	53	10	30
CSE	71	86	72	78	70	109
Total	217	198	142	168	89	150
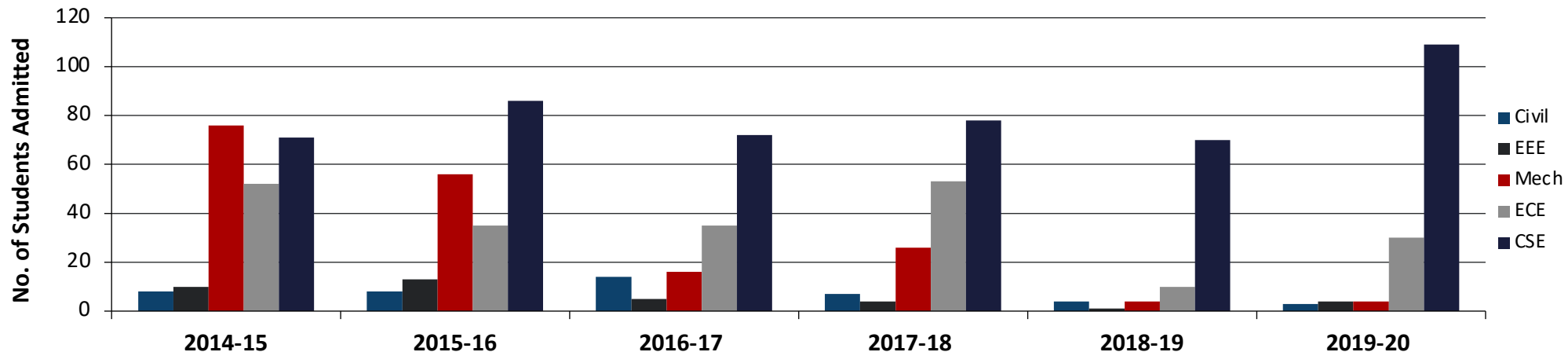
Result Analysis

Academic Year	No. of Students Registered	No. of Students Passed	Pass Percentage
2014-15	218	148	67%
2015-16	198	139	70%
2016-17	142	82	57%
2017-18	167	99	59%
2018-19	89	31	34%
2019-20	150	57	38%
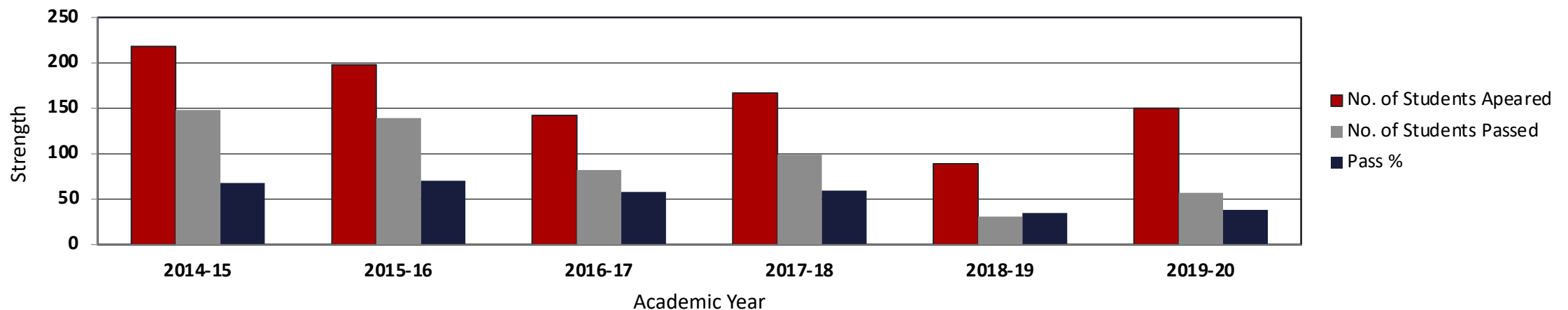
Department Academic Toppers

S.No.	Academic Year	Branch	Roll No.	Name of the Student	CGPA(%)
1	2014-15	ECE	146C1A0447	T. Pushpalatha	86%
2	2015-16	CSE	156C1A0563	M. Srilekha	85%
3	2016-17	MECH	166C1A0307	J. Rambabu	9.13
4	2017-18	CSE	176C1A0523	D. Rajesh	9.5
5	2018-19	CSE	186C1A0551	P. Ajay	8.94
6	2019-20	CSE	196C1A0542	K. Jithendrakumari	8.29

Research Activities

- The department encourages all the students and staff to participate in conferences, workshops, seminars and expert talks

- There are 4 staff members who are yet to submit the thesis

- And there are 4 staff members who are pursuing their PhD in renowned universities

Paper Publications

S.No	Name of the Author(s)	Papers Published in IEEE/ Scopus Journals
1	Dr. U.V. Subbarao	02
2	Mrs. A. Swetha	02
3	Mr. M.M.K. Raju	02
4	Dr. G.V.V. Jagannadha Rao	03
5	Mr. N. Satyanarayana	05

Faculty Development Programs

S.No.	Academic Year	No. of FDP'S Organized
1	2014- 15	2
2	2015-16	2
3	2016-17	2
4	2017-18	2
5	2018-19	2
6	2019-20	1

Guest Staff Details

S.No.	Name of the Guest	Designation and Industry	Area of Work
1	Prasad Lokam	CEO, Miracle Software Systems	IoT
2	Chanakya Lokam	Director - Marketing and Innovation, Miracle Software Systems	IoT
3	Raghuveer Vishnu	CI, Bhogapuram Police Station	Anti Ragging Act
4	M. Pushpa	Technical Trainer, Miracle Software Systems	Java
5	Manasana Sidhapally	Senior Research Associate	Machine Learning
6	Mounika Chirukuri	Senior Research Associate, Miracle Software Systems	Big Data
7	Aditya Chinni	Manager - Innovation Team, Miracle Software Systems	Robotics
8	G. Venkatesh	Software Engineer, TCS	JAVA

Industry Interactions
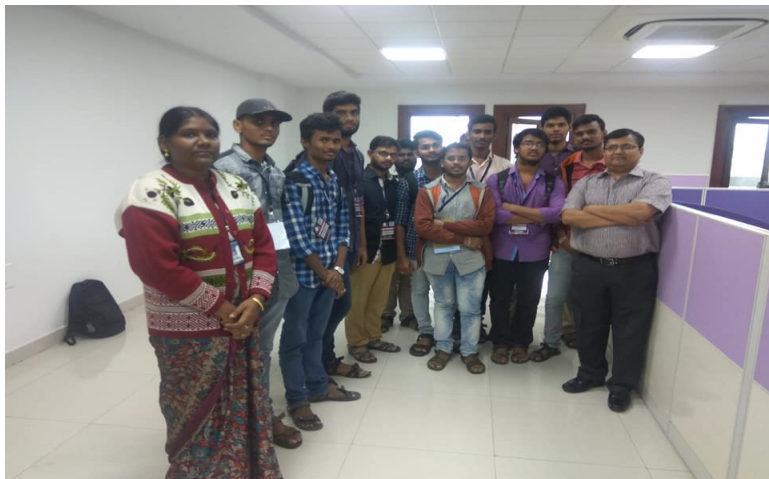
Infrastructure Details

| S.No.	Type of Room	No. of Rooms
1	Laboratories	**3**
2	Classrooms	**6**
3	Staff Room	**2**
4	HOD Cabin	**1**
5	Computer lab	**1**
6	E- Classroom	1

Physical Infrastructure Facilities

- Adequate Portable Drinking Water facility is available for Students, Staff and Faculty at all common points
- First Aid kits are made available in the Laboratories and Department
- Stand alone Desktop computer with internet is provided to department
- WIFI facility is available for students and staff
- Suggestion box is made available in the department
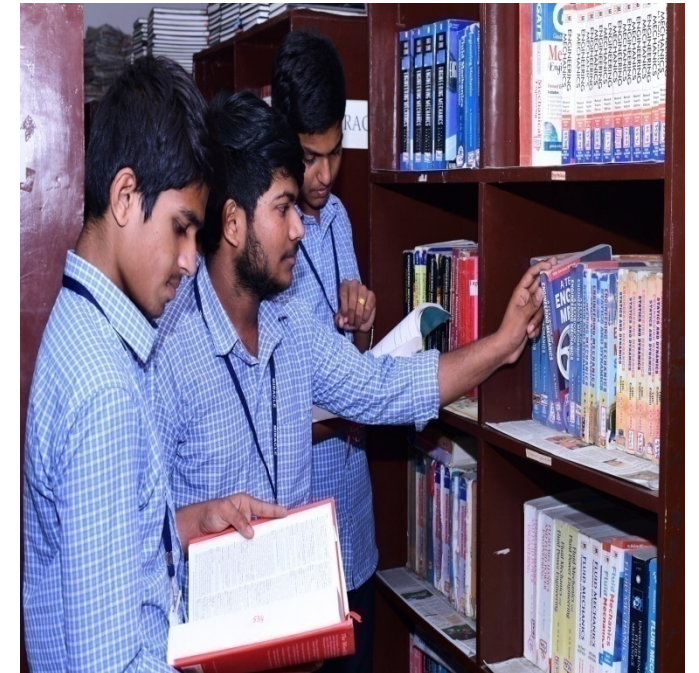
First Aid Kit

Suggestion Box
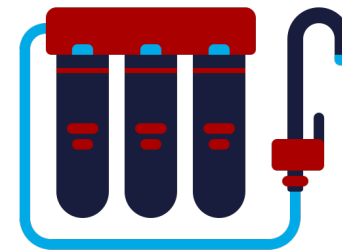
Drinking Water

Department Library

- All the students are encouraged to register themselves in NDL, Swayam-NPTEL portals and refer various certificate courses offered by them
- All the students are encouraged to write online mock tests

Course	Category	
UG	Volumes	**80**
	E-Library	**10 CDs**

English Communication Skills Laboratory

- English lab consists of two parts. The first part deals with Pronunciation and speaking skills with sufficient practice The second part is activity based and provides systemic practice in using English especially focus on communication and fluency
- The software that is used in Language Lab is Globarina Software, and it can accommodate 60 students at a stretch
- A separate E-Classroom for Language lab maintains the Audio- Visual aids to strengthens the foundation of English language

Engineering Chemistry Laboratory

- The Engineering Chemistry Laboratory is well located with an airy and spacious hall of floor area 175 square meters including a storeroom for safe keeping of explosive & corrosive chemicals in view of the Laboratory safety

- Each working table in the laboratory is well furnished with reagent racks, well connected with water supply and burners.

- The major apparatus are, Conductivity Meter, Digital pH Meter, Digital Weighing Balance, Simple Balance and Hot Plate

Orientation Program for Students

- Every Year the department conducts an orientation program for all the Aspirants of Engineering
- The program will be conducted for a period of 30-45 days by the experienced faculty
- The program includes both theory and lab sessions
- It includes C, English Communication Skills, Aptitude and Reasoning classes
- Every weekend, free online mock test are conducted
- Merit students are offered free sponsorships

Free Scholarships Provided

- College Management provides scholarships on merit basis

- More than **40%** of the students are getting benefited

Fresher's Induction

- At the beginning of every academic year, a formal inaugural Pooja followed by the interaction session by Chairman, Principal
- Exchange of thoughts
- Department visit
- Games and Fun
- Help line numbers of Management, Principal, Dean, Various Cells, Department Staff would be shared with the Students and Parents

Training Programs

- Based on the Performance in classroom discussions, class tests and mid exams, the students are categorized into Slow learners and Advanced learners
- For Slow learners, department provide proper guidance, counseling, study materials, remedial classes
- For Advanced learners , department provide add on materials, topics beyond syllabus, issue of additional books, representation in fests
- Department provides special training on soft skills, motivational for all the students with the help of TPO cell
- Study hours are conducted to revise the syllabus just before the exams during college hours and at hostel by the department staff members
- Students are encouraged to participate in awareness programs on Digital transactions, Voter's day, Plantation, Anti-Ragging, Yoga which helps the students to learn social ethical values

Remedial Classes

- Remedial Classes are conducted to support the students who have backlogs especially in subjects like Mathematics and Physics
- Senior Faculty will be conducting these remedial classes
- The Remedial classes schedule is released to all the Junior and senior students well in advance before exams
- All the HOD's are requested to coordinate the students to these classes
- The Classes are conducted in college during 4.00 PM-5.00 PM
- The Classes are also conducted in Hostel during 5.30 PM-7.00 PM

Participation In Interdepartmental Activities

S.No.	Name Of The Event	Date	Activity
1	APSSDC Program	15/3/2018, 16/3/2018, 17/3/2018	MIT App Inventor and Raptor Course
2	Department level Seminars	15/8/2018	Presentations, JAM, Elocution Competition
3	Tech unite - 2K18	7/9/2018, 9/9/2018	Sports, JAM, Elocution, Culturals
4	Civil Fest (RACE)	12/9/2019	Sports, JAM, Elocution, Culturals
5	"ELECSPIRE 2K19" under SPARK Association	20/9/2019	Sports, JAM, Elocution, Culturals
6	Vajrah-2020, College Fest	6/3/2020, 7/3/2020	Sports, JAM, Elocution, Culturals

Webinars Organized by Department

S.No.	Name of the Event	Date of Activity
1	Online Quiz on General Sciences	25th May 2020
2	Webinar on Applications of Mathematics in Engineering	27th May 2020
3	Two Days Webinar on "Physics and It's Applications in Engineering Branches"	29th-30th May 2020
4	Webinar on "Developing Communication Skills Up to the Mark"	7th June 2020
5	Webinar on "What Makes You Be A Successful Engineer"	11th June 2020
6	Bright Minds - A Quiz on Puzzles to Brainstorm	25th June 2020

Webinars Participated by Students

S.No.	Name of the Event	Date of Activity
1	National Webinar on "Strategies for Preparation and Cracking Civil Services Examinations"	17th May 2020
2	Webinar on "ANSYS Mechanical and CFD Capabilities"	6th June 2020
3	Webinar on "Introduction to Disaster Management and Career opportunities in Civil Engineering"	8th June 2020
4	Webinar on "RF Domain using ANSYS FSS"	12th June 2020
5	Webinar on "Role of Yoga for Immunity Boosting against COVID-19"	21st June 2020
6	Webinar on "Effective use of COVID days for future Success : Psychological Perspective"	30th June 2020

Extra Curricular Activities

S.No.	Name of the Event	Date of Activity	Game Type
1	JNTUK Zone - A Inter College Collegiate (Women)	2018	Kabbadi Participation
2	JNTUK Zone - A Inter College Collegiate (Men)	2018	Kho-Kho Participation
3	EENADU Cricket (Men)	2019	Participation
4	SAKSHI District Level Competition - Cricket (Men)	2019	Participation

Student Participations and Achievements
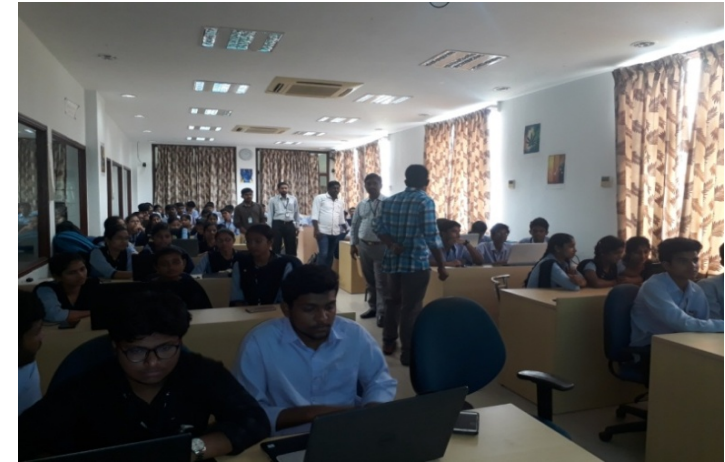
Teaching Quality Monitoring System

- Teaching Quality Evaluation - Based on teaching documents, teaching standards, effectiveness, completion of course/task
- Teaching Information - Based on the content delivery, research work
- Teaching Guidance - Based on assigned duties performance

Feedback from Students

- Feedback is taken from the students by IQAC Team constituted by the Principal, twice in each Semester for all the theory subjects and labs

- Feedback taken is thoroughly analyzed by the team to identify the short comings of the faculty and necessary steps will be taken to improve their performance

Innovations Real Time Projects

Department encourages students to come out with new ideas and allows them to use the lab tools for model preparations

Best Practices

- Use of online courses, multimedia for teaching
- Rewards for Best teacher, Subject topper, Topper of the year
- Parents meet
- Student mentoring, guidance on scholarship registrations, online and semester end exams
- Social services - awareness program on Web Counseling, Anti-Ragging, Blood donation campaigns
- Celebration of National Mathematics Day
- Paperless based communication through Email, WhatsApp, SMS, ECAP Services

Parents Meet

Once in a year, parent-teachers meeting will be organized by the department,

- To share the academic progress of the student
- Participation of the student in academic activities
- Completion of lab records and assignments
- Learn from parents about the strengths, interest, needs, behaviors

Student Counseling

- Each staff member of the department is allotted with 20 students to maximum
- Once in every 15 days, each student must interact with their respective counseling faculty
- The counselor will be asking for the student academic updates, backlogs if any, their problems in college or in hostel, participation/achievements if any, fee dues, external exam performance
- The counselor will be maintaining a separate counseling record for each student
- The counselor will try to be in contact with the parents through What's app, SMS services in ECAP. They send details like monthly attendance, internal marks, warnings for poor performance, fee dues update, holidays declared if any
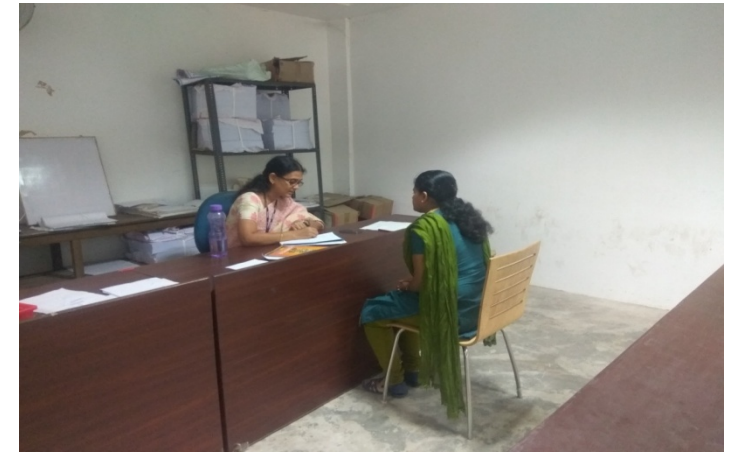
Awareness on Anti- Ragging

- Awareness Programs on Anti- Ragging are conducted by inviting officers from nearest Police station
- Anti- Ragging slogans are pasted in all the display boards
- Anti Ragging committee and Disciplinary committee - helpline numbers are be displayed at all the common points in the college campus
- Anti- Ragging undertaking forms are collected from all the senior students
- Well in advance before the Fresher's day celebrations, interactions between Juniors and senior students is provided with the aid of all the staff members
- Students are provided individual email id to communicate their issues if any
- Upon receiving a complaint, the Committee would analyze the problem and severe action would be taken without any delay

RAGGING

ABSOLUTELY NOT TO RAGGING

1. Ragging is Prohibited as per Act 26 of A.P. Legislative Assembly, 1997.
2. Ragging entails heavy fines and / or imprisonment.
3. Ragging invokes suspension and dismissal from the College.
4. Outsiders are prohibited from entering the College and Hostel without permission.
5. Girl students must be in their hostel rooms by 7.00 p.m.
6. All the students must carry their Identity Cards and show them when demanded.
7. The Principal and the Wardens may visit the Hostels and inspect the rooms any time.

Jawaharlal Nehru Technological University Kakinada
For Constituent Colleges And Affiliated Colleges of JNTUK

IN CASE OF EMERGENCY CALL TOLL FREE NO. : 1800-425-1288

LET US MAKE JNTUK A RAGGING FREE UNIVERSITY

Extension Activities

Power of self energy by yoga on 21.10.17

Future Plans

- To improve the pass percentage
- To organize a greater number of workshops/seminars in collaboration with institutions and universities
- To increase the number of student and industry expert interactions, which might produce innovative ideas among students
- To encourage a greater number of the faculty towards research work