



MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE

(UGC-AUTONOMOUS INSTITUTION)

Affiliated to JNTUA, Ananthapuramu & Approved by AICTE, New Delhi

NAAC Accredited with A+ Grade

NBA Accredited - B.Tech. (CIVIL, CSE, ECE, EEE, MECH), MBA & MCA



Department of Computer Science & Technology

Date:20-06-2022

Members of the Program Assessment Committee (PAC)

The PAC has been formed for monitoring of different departmental activities. The PAC consists of HOD and faculty members of the department, who periodically monitor the departmental activities and evaluate different parameters.

Composition and approval of PAC:

The following members are nominated and approved for constitution of Program Assessment Committee for the AY-2022 -23.

S.No.	Name of the member	Designation	Position of PAC
1.	Dr. K. Dinesh	Assoc. Professor	Chairman
2.	Dr. Basabi Chakraborty	Professor & Dean	Member
3.	Dr. M. Sreedevi	Professor & Head	Member
4.	Dr. R. Rajakumar	Assoc. Professor	Member
5.	Dr. S Shanthi	Assoc. Professor	Member
6.	Dr. S. Padma	Assoc. Professor	Member
7.	Dr N. Praveena	Assistant Professor	Member

Functions and Responsibilities:

- Monitoring the attainments of Course Outcomes (COs), Program Outcomes (POs), Program Specific Outcomes (PSOs) and Program Educational Objectives (PEOs).
- Suggesting way and means to reduce the curriculum gaps in achieving PO's and PSO's.
- Evaluating program effectiveness and proposing necessary changes.
- Measuring the extent of adherence to planned activities and calendar of events.
- Preparation of periodic reports, records on program activities, progress and status reports.

HOD

Head of the Department

Copy to: **Department of Computer Science & Technology**

Madanapalle Institute of Technology & Science

1. The Principal

2. Vice Principal Academics

3. PAC Members

4. Department File

PRINCIPAL

Principal

Madanapalle Institute of

Technology & Science

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Department of Computer Science & Technology

Date: 24/06/2022

DEPARTMENT ORDER

The following faculty members of the department are requested to take up the responsibility by being the "Department Advisory Board" and see that things are progressing in the assigned area.

Your cooperation in this regard would be highly appreciated.

Composition and approval of DAB:

The following members are nominated and approved for constitution Department Advisory Board for the AY-2022 -2023.

S.NO	Name of the Faculty	Designation	Position of DAB
1	Dr. M. Sreedevi	Professor & Head	Chairman
2	Dr. K. Dinesh	Associate Professor	Member
3	Dr. R. Rajakumar	Associate Professor	Member
4	Dr. S. Padma	Associate Professor	Member
5	Dr. R. Subramanian	Professor	Academic Expert
6	Prof. T. Sreenivasulu Reddy	Associate Professor	Academic Expert
7	Mr. Venkatakrishnan R	Senior Associate, Cognizant Chennai	Industry Expert
8	Ms. T. Madhuri	Associate Engineer, Carelon Global Solutions	Alumni

Responsibilities of the committee:

- DAB consists of HoD, PC and the representatives of key stake holders.
- DAB receives the report of the PAC and monitors the progress of the programme.
- Develops, recommends and approves new or revised programme goals and objectives.


HOD

Head of the Department
Copy to: Science & Technology
Madanapalle Institute of Technology & Science
1. The Principal
2. Vice Principal Academics
3. PAC Members
4. Department File



PRINCIPAL

Principal
Madanapalle Institute of
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Department of Computer Science & Technology

CIRCULAR

Date: 16/07/2022

The Program Assessment Committee (PAC) meeting will be held on 18/07/2022 in the Scaleup Classroom at 10:00 AM. All the PAC members are requested to attend the meeting.

Agenda:

- Assessment of previous results and analysis of Course Outcomes (COs), Program Outcomes (POs), and Program Specific Outcomes (PSOs) for the academic year 2020-21 II semester subjects and for the academic year 2021-22 I semester and II semester subjects.
- Analysis of the overall attainment of POs and PSOs for the 2018-22 batches.
- Discussion on the department's vision and mission to ensure alignment with the institutional vision and mission.
- Examination of the existing POs, PEOs, and PSOs.
- Discussion on the existing R18 Curriculum.
- Discussion on proposal of R20 Curriculum.
- Any other matter with the permission of the chair.

Dr. K. Dinesh
Associate Professor
(PAC Chair Person)

Copy to:

- Department Office
- PAC Members



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Department of Computer Science & Technology

Date: 18/07/2022

Program Assessment Committee (PAC) Minutes of Meeting

Meeting was held on 18/07/2022 in the Scale-up Classroom at 10:00 AM, with Dr. K. Dinesh, Assistant Professor, serving as the Chair, to discuss and review the assessment method for the attainment of Course Outcomes (COs), Program Outcomes (POs), and Program Specific Outcomes (PSOs), as well as to propose the R20 Curriculum and course content for 3rd Year B.Tech. courses.

Agenda:

- Assessment of previous results and analysis of Course Outcomes (COs), Program Outcomes (POs), and Program Specific Outcomes (PSOs) for the academic year 2020-21 II semester subjects and for the academic year 2021-22 I semester and II semester subjects.
- Analysis of the overall attainment of POs and PSOs for the 2018-22 batches.
- Discussion on the department's vision and mission to ensure alignment with the institutional vision and mission.
- Examination of the existing POs, PEOs, and PSOs.
- Discussion on the existing R18 Curriculum.
- Discussion on proposal of R20 Curriculum.
- Any other matter with the permission of the chair.

During the meeting, the following points were discussed:

The Department Advisory Board has set a target value of 2 for all the course outcomes (CO1 through CO5). Based on the discussion, PAC suggested the action plan for improvement in attainment level of COs and it is listed below:

Action Plan for the Academic Year 2020-2021 III Year II Semester

In the course 18CST112-Software Engineering, CO1 did not meet the target value. As an action plan, the committee recommended conducting slip test for the students and encourage students to practice designing software solutions for various problem domains.

Action Plan for the Academic Year 2020-2021 II Year II Semester

In the course 18BIO101 - Life Sciences for Engineers, CO2 did not meet the target value. To attain the target, the committee suggested to provide a deep understanding of the relationship between the structure and function of proteins and nucleic acids, as well as to summarize the industrial applications of biomolecules.

In the course 18CST104-Digital Logic Design, Course Outcomes CO2, CO3, and CO4 is not attained the target. To reach the target level, the committee members suggested to facilitate students in achieving the ability to construct logical units using logical elements, understand combinational circuits and the analysis of arithmetic units, and demonstrate the procedure of synchronous sequential circuits.

Action Plan for the Academic Year 2021-2022 IV Year I Semester

In the course 18CST113-Distributed and Cloud Computing, Course Outcomes CO5 did not meet the target value. To reach the target level, the committee members suggested to conduct guest lectures, seminar and workshops much be planned on energy efficiency and trust management.

Action Plan for the Academic Year 2021-2022 III Year I Semester

In the course 18CST109-Formal Language Automata and Compiler Design, Course Outcomes CO2 did not meet the target value. To reach the target level more problems will be given in parsing techniques and semantic analysis for a given grammar.

Action Plan for the Academic Year 2021-2022 II Year I Semester

In the course 20HUM101-Economics and Financial Accounting for Engineers, Course Outcomes CO4, and CO5 is not attained the target. value. The committee suggested to discuss more case studies on financial statement analysis and investment evaluation.

In the course 20MAT111- Probability and Statistics for Computer Science, Course Outcomes CO1, CO2, and CO5 is not attained the target. value. The committee suggested to conduct interactive sessions using real-life scenarios to explain the significance of probability in engineering.

Action Plan for the Academic Year 2021-2022 IV Year II Semester

The committee members have suggested to maintain the same target level for all the course, as target level of all POs are not attained.

Analysis of the overall attainment of POs and PSOs for the 2018-22 batches (1st Batch)

The attainment of all the POs(PO1-PO12) and PSOs (PSO1-PSO3) is level 2.25 for the 2018-22 batch. The committee members also suggested to follow the same target level for the 2019-23 batch with the approval of DAB and BoS committee.

The CO attainment for all the courses have reached the target value except the few courses such as Digital Logic Design, Formal Language Automata and Compiler Design, and Wireless and Sensor Networks. The committee members suggested the following action plan to attain the outcomes in the upcoming semester.

Based on the discussion, PAC suggested the action plan for improvement in attainment level of POs/PSOs as 75% for evaluation. The suggestion given by committee members as follows:

- The PO2 target value is 2.25, while the attained value is 2.21, indicating the target has not been met. Courses such as 18CST101, 18CST102, 18CST103, 18CST106, 18CST107, 18CST108, 18CST110, 18CST112, and 18CST401 need improvement. Actions include organizing guest lectures and hands-on workshops for courses like DBMS, Operating Systems, and Computer Networks, encouraging students to take

online courses to enhance their problem-solving and analytical skills, and hosting hackathon events to expose students to the latest technologies.

- The attainment of PO3 at 2.07 which does not reach the target value of the 2.25 goal, highlighting the need for enhancement in courses such as 18CST101 through 18CST113. To address this, we will implement additional classes and tutorials specifically for Data Mining, Data Warehousing, and Big Data Analytics. Students will also be encouraged to engage in coding competitions to foster practical skills in designing and developing solutions. Furthermore, organizing hackathon events will expose students to the latest technologies and allow them to tackle real-world problems.
- PO4 target value of 2.25 was not met, attained only 2.01. Improvement is needed in courses like 18CST103, 18CST105, 18CST108, 18CST110, 18CST112, 18MAT112, 18CST401, and 18CST113. To address this, hands-on sessions and demonstration classes were introduced to enhance practical skills before experiments. Additionally, students are encouraged to engage with complex programming challenges on HackerRank to bolster their coding abilities.
- PO6: The Engineer and Society has a target value of 2.25 but only achieved 1.88, indicating the goal was not met. Feedback from student interactions revealed a need for increased motivation to address societal challenges. To improve this, students were encouraged to analyze societal issues more critically. Additionally, expert talks were organized to connect engineering practices directly with these societal problems.
- PO12: Life-long Learning has a target value of 2.25 but achieved only 1.87, indicating the target was not met. To address this, we have organized multiple workshops, seminars, and guest lectures on cutting-edge technologies. We encourage students to enroll in MOOCs to foster a habit of lifelong learning. Additionally, guest lectures from esteemed engineering professionals help extend foundational college concepts and promote continuous personal growth. All the remaining POs have reached the fixed target level.
- PSO1, focused on designing algorithms and solving real-world problems through programming, did not meet its target value of 2.25, achieving only 2.06. Courses such as 18CST4M09, 18CST113, and 18CST415 were identified as needing improvement. To address this, students will receive more targeted assignments, additional tutorial classes to enhance problem-solving skills, and encouragement to participate in coding competitions.
- The PSO2 and PSO3 attained the target value and the committee suggested to motivates the students to do internships projects in advanced technologies like Data Analytics, Machine Learning, Intelligent Systems, Cyber Security.
- The committee members discussed the 84% percentage of the students graduated in the stipulated period for 2018 admitted batch.
- The committee members suggested that the target level of POs and PSOs can be maintained at the same level and incorporate the suggestion to attain the target level.

The stakeholders report of academic year 2021-22 suggested the following suggestions such as Computer Organization and Architecture (18CST107) will cover basic arithmetic operations

more comprehensively. Computer Networks (18CST108) will include Bluetooth, WiFi, Zigbee networks, socket programming, and concepts like DNS and firewall. Formal Language Automata and Compiler Design (18CST109) will streamline content. Lastly, AI Tools, Techniques and Applications (18CST110) will expand on supervised and unsupervised learning, neural networks. Additionally, in Distributed and Cloud Computing (18CST113), it's suggested to cover basic cloud computing architecture and different platforms. Lastly, in Mobile Application Development (18CST114), students recommend requiring a basic course in web development and focusing the syllabus more on application development. Further, the number of events can be increased to improve student knowledge and development.

The students suggest enhancing Database System by incorporating additional topics beyond Oracle basics and integrating more practical implementations. In Digital Design, there's a need to balance subjects between Electronic and Communication Engineering (ECE) and Computer Science and Technology (CST). For Data Structures and Algorithms (DSA), prioritize practical implementations for competitive exam preparation like GATE. In Probability and Statistics, introduce basics of warehouse management to aid GATE preparation in Data Analysis (DA). Operating System course requires more problems and topics. Object-Oriented Programming (OOP) should include Java concepts like collections. Networking and Communication should emphasize real-world scenarios. In SOC, consider including Android app development. Additionally, increase Linux environment training, especially in OS laboratory sessions.

The committee members and stakeholders discussed to include the following subject areas in the III-year R20 curriculum as follows:

- The committee chairman suggested to consider the stakeholder suggestions such as computer network and AI Tools, Techniques and Applications courses must be included with advance implementation concepts. Further, the number of events can be increased to improve student knowledge and development. 20HUM102 Universal Human Values is offered as three credit courses for 2021 (Regular) & 2022(Lateral Entry) Admitted Batch onwards as per the guidelines of AICTE.
- Dr. R. Sreedevi suggested including these subjects to improve students' understanding of compilers.
- Dr. Basabi Chakraborty recommended incorporating both theory and lab components to enhance students' skills in AI techniques and advancements.
- Dr. K. Dinesh proposed including Software Engineering theory and lab in the R20 syllabus.
- Dr. S. Padma suggested Cryptography and Network Security including both theory and lab in the R20 syllabus.
- Dr. M. Sreedevi recommended including Cloud Computing, including theory and lab, in the curriculum.
- Dr. Basabi Chakraborty and Mr. N. MageshKumar suggested the inclusion of Internet and Web Programming theory and lab in the R20 syllabus by replacing mobile application development as students require basic knowledge about full stack development.
- Dr. S. Padma recommended adding Disaster Management to the R20 syllabus.
- Dr. R. Rajakumar suggested adding Introduction to Machine Learning subject in the third year first semester as a Professional Elective-I.
- Dr. S. Shanti and Dr. K. Dinesh recommended including GPU Architecture and Programming as a Professional Elective-I in the R20 syllabus.

- Dr. S. Padma proposed adding Principles of Cyber Security to enhance students' knowledge in information security as part of Professional Elective-I.
- Dr. N. Praveena suggested including Graphics and Multimedia in the R20 structure as a part of Professional Elective-I.
- Dr. K. Dinesh recommended incorporating Wireless Sensor Networks into the R20 syllabus as a Professional Elective-I.
- The members collectively suggested the inclusion of recent technology-oriented MOOCs courses, such as Computation Complexity, Introduction to Soft Computing, Online Privacy, Privacy and Security in Online social media, Ethical Hacking, Introduction to Internet of Things, Advanced Computer Architecture, Social Network Analysis and Software Project Management, was also recommended for Professional Elective-II.

The committee members recommended that the Internal Department Committee (IDC) monitors the assessment of Project Work-I and Project Work-II using the provided rubrics. Additionally, they proposed that the assigned guide should encourage students to select research projects and publish conferences or journals.

The committee members have suggested that the course content and syllabus should be reviewed by the course coordinator and senior faculties. Furthermore, they recommend that the course objectives and outcomes utilize Bloom's Taxonomy to categorize learning outcomes based on cognitive levels, ensuring that each outcome is measurable. Additionally, they propose comparing the course outcomes with the program outcomes to identify areas of alignment or gaps.

The committee members have not suggested any modification in the department vision and mission as it is in line with the institutional vision and mission.

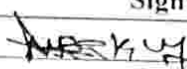

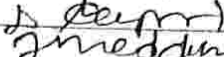


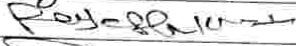

The committee members have not suggested any modification to existing PEOs, and PSOs.


The committee suggested conducting industrial visits, skill development program and internships for bridging the gap between theoretical and industrial practices.

PAC Members:

S.No.	Name of the member	Designation	Signature
1.	Dr. K. Dinesh	Assoc. Professor	K D
2.	Dr. Basabi Chakraborty	Professor & Dean	Basabi
3.	Dr. M. Sreedevi	Professor & Head	M. Sreedevi
4.	Dr. R. Rajakumar	Assoc. Professor	R. Rajakumar
5.	Dr. S Shanthi	Assistant Professor	S. Shanthi
6.	Dr. S. Padma	Assistant Professor	S. Padma
7.	Dr N. Praveena	Assistant Professor	N. Praveena

The following members of the stakeholder were present:

S.No.	Name of the member	Designation	Signature
1	N. MACHESHIKUNAR	Asst. prof	
2	D. Surosh	Asst. prof	
3	D. Abdul Jaleel	Asst. prof	
4	T. Sreenivasulu Reddy	Academic	
5	Mr. Shaik Rohamthulla	Alumni	
6	Mr. Y. Rasheerudheen	Parent	
7	Mr. T. Devendra	PARENT	


 Dr. K. Dinesh
 Associate Professor
 (PAC Chair Person)



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Department of Computer Science & Technology

CIRCULAR

Date: 18/07/2022

The Department Advisory Board (DAB) meeting will be held on 20/7/2022 in the Scaleup classroom at 10:00 AM. All the DAB members are requested to attend the meeting.

Agenda:

- Assessment of previous results and analysis of Course Outcomes (Cos), Program Outcomes (Pos) and Program Specific Outcomes (PSOs) of 2018-22 admitted batch.
- Discussion on proposal of R20 Curriculum.
- Discussion on department vision, mission and PEOs.
- Any other matter with the permission of the chair.

Dr. M. Sreedevi
Professor & Head

Head of the Department,
Department of Computer Science & Technology,
Madanapalle Institute of Technology & Science,
MADANAPALLE - 517 328

Copy to:

- Department Office
- DAB Members



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Department of Computer Science & Technology

Date: 20/7/2022

Department Advisory Board Minutes of Meeting

Department Advisory Board (DAB) meeting held on 20/7/2022 in the Scaleup classroom at 10:00 AM with Dr. M. Sreedevi, Professor & Head as Chair to discuss and review the assessment method for the attainment of Course Outcomes (COs), Program Outcomes (POs), and Program Specific Outcomes (PSOs), as well as to propose the R20 Curriculum.

Agenda:

- Assessment of previous results and analysis of Course Outcomes (COs), Program Outcomes (POs) and Program Outcomes (PSOs) of 2018-22 admitted batch.
- Discussion on proposal of R20 Curriculum.
- Discussion on department vision, mission and PEOs.
- Any other matter with the permission of the chair.

During the meeting, the following points were discussed:




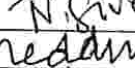
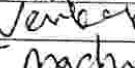
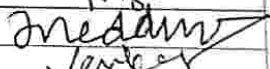
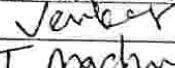
- Dr. M. Sreedevi, Professor & Head, welcomed the members of the committee who has assembled for reviewing the assessment method for the attainment of Course Outcomes (COs), Program Outcomes (POs), and Program Specific Outcomes (PSOs), as well as to propose the R20 Curriculum.
- The members discussed the suggestions given by PAC members in terms of attaining Course Outcomes, Program Outcomes, and Program Specific Outcomes during a meeting held on 18/07/2022.
- The members suggested to conduct hackathon, where the students are exposed to latest technologies and develop solutions for the real-world problems.
- The members suggestion for improvement in PO3 and PO4 by incorporating mini projects given to students are quite complex to help them in understanding complex problems
- The committee suggested that students should participate in society-oriented projects during their summer internships.
- Students are encouraged to write articles for college magazines or papers for technical fests to enhance their communication skills.
- The committee recommended that the course coordinator should integrate content focusing on lifelong learning.
- The committee also recommended maintaining the same department vision, mission, and Program Educational Objectives (PEOs).

- The committee suggested to include Compilers, Artificial Intelligence (AI) Techniques, Software Engineering, Internet and web programming Cryptography and Network Security, Cloud Computing with theory and lab.
- The committee also recommended to include range of topics including machine learning, graphics, cybersecurity, multimedia, and wireless sensor networks, providing students with a diverse set of choices for their Professional Elective-I.

The Department advisory board recommends reviewing course content and syllabi by the course coordinator and senior faculty. They suggest using Bloom's Taxonomy for measurable course objectives aligned with program outcomes. Additionally, they value the PAC suggestion to compare course outcomes with program outcomes to identify alignment and gaps. Furthermore, the members suggest calculating CO-PO attainment for all courses according to departmental attainment values in all assessments.

The committee members accepted that the target level of POs and PSOs can be maintained at the same level and incorporate the suggestion to attain the target level as per PAC recommendations. The draft versions of the R20 curriculum have been submitted for approval by the BOS.

List of Faculty Members in the Department Advisory Committee

S.NO	Name of the Faculty	Position of DAB	Signatures
1	Dr. M. Sreedevi	Chairman	
2	Dr. K. Dinesh	Member	
3	Dr. S. Padma	Member	
4	Dr. B. Aravind	Member	
5	Dr. N. Sivakumar	Academic Expert	
6	Prof. T. Sreenivasulu Reddy	Academic Expert	
7	Mr. Venkatakrishnan R	Industry Expert	
8	Ms. T. Madhuri	Alumni	