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	DEPARTMENT OF INFORMATION TECHNOLOGY

POs & PSOs Attainment Levels and Actions for improvement: Admitted Batch 2016-20   **A.Y:2019-20**

POs	Target (%)	Attained (%)	Observations
PO-1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
PO 1	70	64	• Target not reached
Action Taken: Action 1: Conducted one day Orientation Programme on "Importance of engineering in the Society" on 28th June 2018 to improve the Engineering fundamentals and role of engineers in the current society. Action 2: For the theory courses the faculty are instructed to give more assignments for the students. Action 3: The faculties of the laboratory courses were advised to conduct more demonstration classes.			
POs	Target (%)	Attained (%)	Observations
PO-2.Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.			
PO 2	65	65	• Target reached
Action Taken: Action 1: Conducted Seminar on Visualization of Data Structures on 21st March 2016. Action 2: For the theory courses the faculty are instructed to give more assignments for the students. Action 3: The faculty of the laboratory courses was advised to conduct more demonstration classes.			
POs	Target (%)	Attained (%)	Observations
PO-3.Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.			
PO 3	65	64	• Target not reached
Action Taken:			

Action 1: More number of classes/tutorials were conducted for the courses which are contributing design &development of solutions.

Action 2: Conducted a Workshop on "Ethical Hacking & Cyber Security" on 30th and 31st Oct 2015 to improve the research methods including design of experiments.

POs	Target (%)	Attained (%)	Observations
PO-4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.			
PO 4	65	65	• Target reached

Action Take:

Action 1: To improve practical knowledge, Hands-on Sessions/Demonstration classes were conducted before executing the experiment.

Action 2: Conducted workshop on Python Programming 7th to 8th Dec 2017 to improve student's problem solving skills and programming knowledge.

POs	Target (%)	Attained (%)	Observations
PO-5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.			
PO 5	65	61	• Target not reached

Action Taken:

Action 1: Tutorials were conducted for the courses which contributed less. In addition to that tutorial hours are handled by two facultymembers.

Action 2: Conducted workshop on "5G Technologies" 7th Sep 2018 to improve the modern tool usage.

Action 3: Conducted Guest Lecture on "Influence Of Technology In Financial Industry" 4th Sep 2018 to improve the practical knowledge on society demand.

POs	Target (%)	Attained (%)	Observations
PO-6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.			
PO 6	60	64	• Target reached

Action Taken:

Action 1: Motivated the students by explaining the importance of doing internship and project work.

Action 2: The faculty are instructed to give practical examples relevant to engineering practices to enhance skills to handle problems in the societal context.

Action 3: The faculty are advised to allot a few topics for seminar related to society and the course content to present in the class room.

POs	Target (%)	Attained (%)	Observations
PO-7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.			

PO 7	60	61	• Target reached

Action Taken:

Action 1: The faculty are instructed to teach and give practical approach of the topics in view of long term goals like environment and sustainability.

Action 2: It is advised to involve more number of students in the Environmental club activities.

Action 3: Inculcate the students to solve the problems on environmental oriented projects.

POs	Target (%)	Attained (%)	Observations

PO-8.   Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 8	60	64	• Target reached

Action Taken:

Action 1: Faculty are advised to instruct the students about the importance of ethics in the engineering profession.

Action 2: Motivate the students on real life case study problems to debate on ethical decision and judgments.

Action 3: Faculty is advised to instruct students to follow ethical values while doing the programs, writing records and paper publications.

Action 4: Conducted Alumni guest lecture on "Discipline and Career" 14th May 2020 to learn Ethical values.

POs	Target (%)	Attained (%)	Observations

PO-9.   Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 9	60	65	• Target reached

Action Taken:

Action 1: Awareness on leadership qualities was created by project assessment and evaluation committee.

Action 2: Create awareness on teamwork by preparing the posters.

Action 3: Focus is given to motivate the students by conducting ICCIDE conference with in the Institution. So most of the students actively involved individually as well as team to make the event success.

Action 4: Conducted association activities to improve the teamwork/leadership qualities and communication skills.

Action 5: Organized National Level Technical Symposium "Lakshya 2K19" to improve the leadership qualities as well as teamwork of the students.

POs	Target (%)	Attained (%)	Observations

PO-10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 10	60	66	• Target reached

Action Taken:

Action 1: Group discussion / Role play/ Debate/ Quiz/Essay Writing competitions are encouraged at regular intervals.

Action 2: Classes on communication and soft skills, analytical aptitude, and technical skills are arranged by the college every year apart from regular classes as per schedule.

Action 3: Conducted association activities to improve the teamwork/leadership qualities and communication skills.

Action4: Conducted National Level Online Technical Online Quiz Competition 3rd June 2020.

POs	Target (%)	Attained (%)	Observations
PO-11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.			
PO 11	60	61	• Target reached

Action Taken:

Action 1: Focus is given to motivate the students by explaining the importance of doing internship and project work.

Action 2: Create awareness on project management by project assessment and evaluation committee.

Action 3: Conducted association activities to improve the teamwork/leadership qualities and communication skills.

Action 4: Conducted one day guest lecture on "Influence Of Technology In Financial Industry" on 04-09-18 to enhance the knowledge on project and Industry financial related components.

Action 5: Introduced plagiarism checking (40%) for Main Project to maintain the quality of project.

POs	Target (%)	Attained (%)	Observations
PO-12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.			
PO 12	60	66	• Target reached

Action Taken:

Action 1: Additional classes to be conducted to introduce Turing Machine and Push down automata concepts.

Action 2: Conducted two day workshop on digital marketing on 30th Aug and 31st Aug 2018 to enhance the employability skills of the students.

Action 3: Conducted Alumni Guest Lecture on placements on 06-05-2020 to create awareness on software Industry.
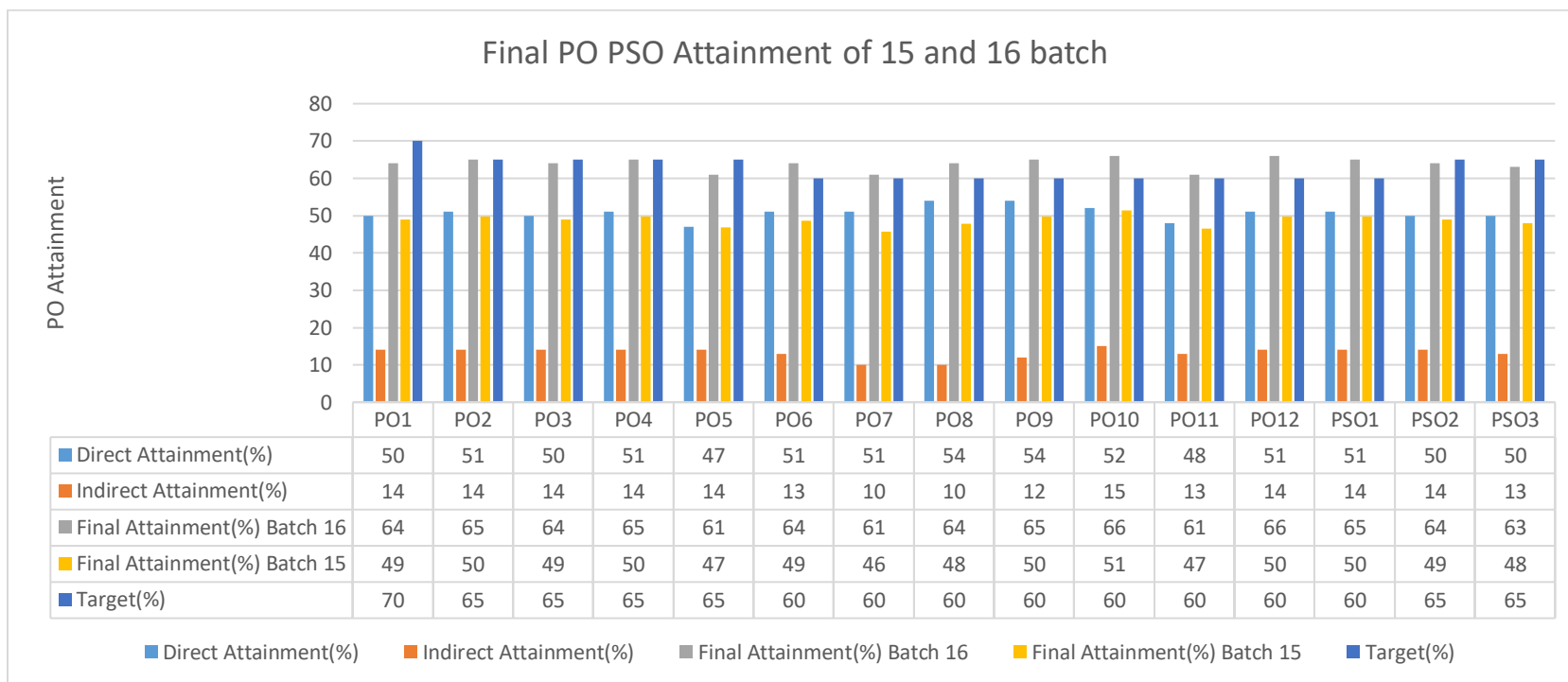
PSOs	Target (%)	Attained (%)	Observations
PSO1: Organize, Analyze and interpret the data to extract meaningful conclusions.			
PSO 1	60	65	• Target reached

Action Taken:

Action 1: The faculty handling the courses who failed to attain the target are instructed to give more assignments for the students. In addition to that tutorial hours are handled by two facultymembers.

Action 2: The faculty of the laboratory courses who failed to attain the target are advised to conduct more demonstration classes before attending laboratory.

Action 3: Organized one day guest lecture on "Influence Of Technology In Financial Industry" on 4th Sep 2018 to create awareness on industrial requirements.

PSOs	Target (%)	Attained (%)	Observations
PSO2: Design, Implement and Evaluate a computer-based system to meet desired needs.			
PSO 2	65	64	• Target not reached

Action Taken:

Action 1: More examples on Probability and Statistics practiced by students in additional classes(S351)

Action 2: The faculty of the laboratory courses who failed to attain the target are instructed to demonstrate experiments using video lectures in order to motivate students.(L166and L130)

Action 3: Organized Two day Workshop on Python Programming, APSSDC, 7th to 9th Dec 2017.

PSOs	Target (%)	Attained (%)	Observations
PSO3: Develop IT application services with the help of different current engineering tools.			
PSO 3	65	63	• Target not reached

Action Taken:

Action 1: The faculty of theory courses whose target has not reached are instructed to conduct more tutorials to improve the student performance.

Action2: To strengthen the L120, workshop is Conducted on Web Trends ON 13th Dec 2017. So that students can improve the development & programming skills.

Action 3: The faculty are advised to conduct Bridge course for the students who are lagging in basics of S157, S382 and S163.

Action 4: Conducted workshop on Blogging and Ethical hacking on 2nd and 3rd August 2014.

Table B.7.1POs & PSOs Attainment Levels and Actions for improvement

Observations and Action Taken Report:

Final PO PSO Attainment of 15 and 16 batch

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Direct Attainment(%)	50	51	50	51	47	51	51	54	54	52	48	51	51	50	50
Indirect Attainment(%)	14	14	14	14	14	13	10	10	12	15	13	14	14	14	13
Final Attainment(%) Batch 16	64	65	64	65	61	64	61	64	65	66	61	66	65	64	63
Final Attainment(%) Batch 15	49	50	49	50	47	49	46	48	50	51	47	50	50	49	48
Target(%)	70	65	65	65	65	60	60	60	60	60	60	60	60	65	65

Legend: ■ Direct Attainment(%)   ■ Indirect Attainment(%)   ■ Final Attainment(%) Batch 16   ■ Final Attainment(%) Batch 15   ■ Target(%)

It is observed that the skills of admitted graduates of 2016-20 batch were improved in the following PO's i.e PO1, PO2, PO3, PO4,PO5,PO6,PO7,PO8,PO9,PO10,PSO11,PO12,PSO1,PSO2 and PSO3 when compared to 2015-19 batch.

Signature of HOD
(Dr.B.Srinivasa Rao)