Student centric learning methodologies

- 1. Different type of learning approaches are adopted depending upon the learning capabilities of the students:
 - a. Policy adopted for Advanced learners
 - 1. Advanced learners are motivated to strive for higher goals. They are provided with additional inputs for better career planning and growth through offering special coaching for higher level competitive examinations.
 - 2. Motivated to involve in small projects to inculcate research orientation and higher studies aspirations.
 - 3. Helping them to participate in group discussions, technical quizzes to develop analytical and problem solving abilities in them and thereby, to improve their presentation skills. Encouraging them to participate in regionals, national and international event like conferences, workshops, hackathons etc.
 - 4. Stirring the advanced learners to make quality publications and creative contributions to the academic as well as to the practical world.
 - 5. They are recognized on website, social media, annual progress report and other university platforms.
 - 6. Startup ideas should be shared and offered to the advanced learners.
 - 7. The mentors give higher goals and also make the advanced learners get higher levels of personality development and through mentor-mentee scheme.
 - 8. They are made the supporters to the average and the slow learners.
 - b. Policy adopted for Slow learners
 - 1. They are treated as any other student in the class but they are provided extra classes for improvement, on the case to case basis.
 - 2. The teachers and mentors help the slow learners by giving individual proper guidance and support to them in terms of offering extra classes and provided with the links of online available additional material.
 - 3. The students are provided training on communication skills, personality development, time management and motivational sessions.
 - 4. Academic and personal counseling is given to the slow learners by the tutor, mentor and the counseling cell.
 - 5. Bilingual explanation and discussion is imparted to the slow learners after the class hours for improving understanding.
 - 6. Arrangements are made to engage advanced learners for providing the support to the slow learners to make their learning process more participatory and interesting.
- 2. Learning by hands on practice has been made mandatory for all the students in case of laboratory courses.
- 3. Another approach for better learning which is adopted by the department is discussion and inquiry based learning. In this learning strategy, student questions, ideas, and analysis

are highlighted and fostered, focusing on the student perspective regarding a particular open question or problem. This strategy is particularly useful for initial student engagement, leading students to move beyond basic knowledge to a deeper understanding of critical thinking, evidence-based reasoning, and creative problem solving.

- 4. Project-based learning is promoted in the last semester for the M. Sc students, students work on longer tasks that culminate in the creation of an original written document in the form of dissertation. This learning strategy in this method of learning depends heavily on student collaboration, dedication, research aptitude and creativity, with the teacher serving as a facilitator / supervisor of student work and progress.
- 5. Considering the corona restriction of two semesters for the master's students of the batch 2020, they are allowed to select between the project and term paper, however the department's policy is to assign dissertation work to top 20 % students out of total intake. Those who opt for term paper they learn through problem-based learning which includes shorter review based projects that examine a current problem, research, and find out the causes of the problem. Students collaboratively with his/her supervisor evaluate solutions to the chosen problem, solve the problem, or report potential solutions and/or findings. Both of these learning strategies that are project and term paper utilize relevant, real-life connections to the outside world, providing students valuable experience with problem solving and critical thinking opportunities that will behoove them after graduation.
- 6. There always exists some of the course content which the students had learnt in the previous qualifying programmes. For such type of content students are encouraged to teach the fellow mates under the guidance of course teacher. This strategy inculcates the better understanding of the content, improves communication skill, builds up the confidence of facing the students and helps to reduce the hesitant behavior of students towards the teacher.