

Department of Computer Science and Engineering

Indian Institute of Technology Hyderabad

## **PhD Comprehensive Examination (2021)**

Every PhD student in the department of Computer Science and Engineering joined on or after August 2020 needs to complete the comprehensive examination as part of his/her PhD program which will be conducted based on the guidelines given below.

- The Comprehensive Exam is held at the completion of the second semester of the student with two possible outcomes for the student: “Pass” or “Repeat”.
- The exam is coordinated by a Comprehensive Examination Committee (CEC) appointed by the HoD/DPGC. The CEC will consist of around 5 faculty members of the department.
- The exam will be a viva **one and a half hour duration** for each student:
  - First 45 minutes: Research presentation--the student will present a sufficiently important work in his/her area of research. The papers that constitute this work should be a significant development in the area and published in top tier journals and/or conferences.
  - Next 45 minutes: Q&A on the presentation, and two core subjects (6 credits) of his/her choice. Foundational subjects (and their syllabi) are drawn from the pool of UG/PG subjects (excluding reading courses and research-oriented topics courses) being currently offered at the department. It is expected, and acceptable, that these core subjects are relevant to the student’s research.
- Research Presentation
  - The papers and the core subjects will be chosen by the student in consultation with his/her supervisor which needs to be vetted by the CEC.
  - A detailed technical review report of the papers given to the student should be submitted to the CEC at least ONE week before the date of the comprehensive examination. It is recommended that the report contains a minimum of 6 pages in IEEE single-column format (or equivalent) which needs to have the approval of the Supervisor(s).
  - The student should demonstrate his/her competence in comprehension and presentation of the given research papers and the committee will focus mostly on this aspect during the presentation.
  - The CEC will ensure that the level of difficulty of the given research papers for each student is more or less uniform, to the maximum extent feasible.
- Core Subjects
  - The purpose of this exam is to ensure the student has a strong foundational understanding of core subjects in computer science and engineering. The

exam is not one of selection for any reward, but one of meeting a minimum bar for continuation in the PhD program.

- At the end of the presentation, the CEC recommends “Pass” or “Repeat” based on the performance of the student in both research presentation and Q&A on core subjects.
- If a student receives a “Repeat” decision, the student is given one more opportunity to pass the exam, which will be held within 3 months of the completion of the first one. The committee may be reconstituted by HoD/DPGC if needed.