



MISSION R & D FOR B. TECH CSE 2ND YEAR (E2 SEM 2)

Mission R&D is requesting for the interested students of the B.Tech CSE 2nd year i.e E2 sem 2 students for their unique programme of Internship cum job (Online mode).

Course Objective: Mission R&D is an innovative initiative with the mission to “Contribute to the growth of India’s R&D ecosystem by developing the most promising technology students, especially women, and by supporting the talent needs of product companies including start-ups”. The course aims to identify such students and train them to be individuals who are complete software engineers.

Prerequisite Knowledge: The course requires that the students possess basic programming skills in C and advanced levels of motivation and a self-drive to push oneself through the course. You will be driven through the course in a very systematic way. Help will always be given, provided you seek it the right way through forums, FB groups and so on. Please refrain yourself from enrolling into the course if you by any chance feel you will not be able to do it with utmost efforts.

Tentative Course Timeline:

Please note that these dates are subjective.

January 2018 to March 2018: Sample questions will be posted on the official Mission Rnd [Facebook Page](#) and also on the [website](#). Every first of the month we will post questions and every 25th we will post their solutions to the same.

March 2018: Entrance exam will be conducted online/offline based on the number of students who are appearing from a college and the availability of a college wise spoc. Test details will be announced soon. The test shall comprise of coding questions based on:

- Number System

- Arrays
- Strings
- Functions
- Pointers

The code will not only be just evaluated based on working but also on complexity etc. We will announce the list of shortlisted students in April 2nd-3rd week and students shortlisted are eligible to be part of Mission RnD Online Program which is a collection of 2 online courses and 6-8 F2F classes. **The fees for enrolling into the above program is 4000 + 18% GST , which will total upto 4720. Once shortlisted we will add you to an RnD portal, where you are required to pay the fees(RGUKT Students who cannot pay, special terms and conditions apply).**

June 2018 – October 2018: Professional Programming C Course : This course covers the basics of programming in an unmanaged language (C language). This course covers the skills that are expected of any entry level systems developer. Algorithm and Complexity Analysis will also be a part of the course . In this course you will be learning the following 8 Modules :

- Basics of C
- Arrays
- Strings
- Linked Lists
- Recursion
- Binary Search Trees
- Dynamic Programming
- Files

Each module will have set of lessons and assignments, which you need to submit by the given deadline.

November 2018- February 2019: Professional Programming Python Course: Here you will be learning a high level managed language (python). This course covers the skills that are essential for any entry level app developer.

In this Course you will be learning about 8 Modules which will consist of:

- Basics of Python, Strings, Lists, Sets, Dicts, Tuples
- Loops, Control Flow, Functions, Exceptions, Scopes
- Packages, Iterators, Lambdas, Comprehensions, Classes, Inheritance
- Decorators, Generators

- File I/O.
- Debugging, Testing
- Timing and Profiling
- Decomposition and Modularity

Each module will have set of lessons and assignments, which you need to submit by the given deadlines. In addition you are expected to build.

While we have described the technical topics above, you are expected to build a number of accessory skills like troubleshooting, reading documentation, getting help effectively on our private forums (similar to stackoverflow), answering questions asked by other students, participating in code reviews and learning about code quality, researching on web to answer technical quizzes etc. All of these are essential skills for software engineers and we expect you to get better at these as you do these 2 courses.

March – *April* 2019:

Both these courses cover the basics that we believe are necessary for all students. Based on the performance in these courses and face2face programming camp(s) that we will conduct (**dates tbd**) students will be shortlisted into one or more summer courses available.

April 2019: We will give some prerequisite tasks for summer selected students so they get the hang of what they would be doing during the summer course.

Summer Program 2019 (May/June 2019):

This will be conducted at IIIT-Hyd, where it will be a 20-25 Days course, where your stay at IIIT-Hyd hostel is mandatory. **The fees for Mission RnD Summer program is 12500 (+18 %GST which totals to 14750)** . You will have to pay separately for hostel and the mess. Staying in the hostel is compulsory.

The summer classes focus on building your skills by working on hands-on projects in the classroom. The hands on projects can be anything related to systems/apps etc but rest assured you need to write lots of code for any of the tasks we will give you in summer.

At the end of summer course, you will be given a final project, and one-month time to build it. After successful completion of the final project, you will receive the course completion certificate. The Project that will be given, and the tentative agenda of what will be the content of the course, will be shared before you join the summer program.

Note : For students who can't pay the fees, we have a flexible fee scheme, where you can pay the amount you feel you can pay where the rest is funded by alumni. You are expected to contribute the amount received as funding back to RnD once your 4th year completes, irrespective of whether you are placed or not.

Only those students who have completed all above tasks and received Course Completion certificate will be allowed to attend the interviews for the Product companies hiring through Mission RnD.

Points to take a note of:

1. This is a paid course.
2. Each year Mission RnD Alumni award scholarships to students qualified to join the course in case the student has a genuine reason to avail the same. So any students who wishes to avail the same can apply to it. We will post the details post the selection process.
3. The first two courses (C course, Professional Programming Course) are run online with 8 in-person classes spread throughout the year.

Registration Starts from: 03.04.2018,2:00PM

Last Date for registration: 04.04.2018,2:30PM.

Note: For registration report to Placement Office (Omega-5).

**Sd/-
Placement Office**