

# **CS638: Formal Methods for Robotics and Automation**

## **Project Presentation Schedule**

**June 15, 2020 (Monday)**

1a. Motion Planning for Robotic Systems using SMT Solver

Time: 2:05 pm – 2:40 pm

Speakers: Group 7

1. Don Ignatius Cyriac (19111031)
2. Naveen M V (19111056)

1b. Controller Synthesis with Inductive Proofs for Piecewise Linear Systems

Time: 2:41 pm – 3:15 pm

Speakers: Group 8

1. Sivarajesh A (19111091)
2. Deepak Mohan (19111027)
3. Akhil S (19111008)

**June 17, 2020 (Wednesday)**

2a. Reinforcement Learning for Temporal Logic Goal

Time: 2:05 pm – 2:40 pm

Speakers: Group 5

1. K Karthikeyan (15807311)
2. Vaibhav Ratnakar (160769)
3. Kuldeep Kushwaha (160349)

2b. Reinforcement Learning for Quadcopters with Temporal Logic Goals

Time: 2:41 pm – 3:15 pm

Speakers: Group 11

1. Vishal Singh(19211273)
2. Yash Kumar(19211274)
3. Nitesh Trivedi(19211266)

**June 22, 2020 (Monday)**

**3a. Sampling Based Motion Planning with Temporal Goals**

Time: 2:05 pm – 2:40 pm

Speakers: Group 3

1. Manas Rawat (160381)
2. Akash Kumar Singh (16807068)
3. Aditya Rai(170053)

**3b. Sampling Based Motion Planning with Temporal Goal**

Time: 2:41 pm – 3:15 pm

Speakers: Group 4

1. Faizan Siddiqui (170264)
2. Aalap Anil Shah (150655)
3. Baldip Bijlani (170203)

**June 24, 2020 (Wednesday)**

**4a. Identifying the Causes of Unsynthesizability in LTL Motion Planning**

Time: 2:05 pm – 2:40 pm

Speakers: Group 9

1. Shatroopa Saxena (19211270)
2. Jagriti Singh (19211262)
3. Randeep Sahu (19211269)

**4b. Minimal Violation Planning**

Time: 2:41 pm – 3:15 pm

Speakers: Group 14

1. Banwari Lal (19111022 )
2. Rohit Singh (19111074)
3. KADAVATH PREM SINGH (180336)

**June 29, 2020 (Monday)**

5a. Motion Planning with Probabilistic Guarantee

Time: 2:05 pm – 2:40 pm

Speakers: Group 1

1. Amit dhyani (19111402)
2. Pratik Kumar (19111065)
3. Ashish ranjan yadav (19111018)

5b. Multi-Agent Cooperative Planning

Time: 2:41 pm – 3:15 pm

Speakers: Group 13

1. Sqd Ldr Khalid Parvez (19111044)
2. Lt Cdr Dhurender (19111030)
3. Abhishek Shrivastava (19111100)

**July 1, 2020 (Wednesday)**

6a. Reactive Mission and Motion Planning

Time: 2:05 pm – 2:25 pm

Speaker: Group 6

1. Shreyash Ravi (170683)
2. Dipak Anil Mahajan (170368)
3. Sahil Agrawal (170607)

6b. Receding Horizon Temporal logic Planning

Time: 2:41 pm – 3:15 pm

Speaker: Group 12

1. Ankit Kumar (170121)
2. Hemant Kumar (170297)
3. PRIYAVRAT ARYA (150529)

**July 6, 2020 (Monday)**

**7a. Automated Feedback Generation for Unachievable Robot Behaviors**

Time: 2:05 pm – 2:40 pm

Speaker: Group 10

1. Rahul B S (160540)
2. Rahul Saxena (16049)
3. Jaiswal Sudhanshu Suraj (160305)

**7b. Human-in-the-loop Controller Synthesis under Temporal Logic Specifications**

Time: 2:41 pm – 3:15 pm

Speaker: Group 2

1. S.B.Vihari Chowdary (19111093)
2. Prakhyat Shankesi (19111062)
3. Kagitha Gopi (19111040)

**July 8, 2020 (Wednesday)**

8a. Verification of a Neural Network Based Quadcopter Controller

Time: 2:05 pm – 2:40 pm

Speakers: Group 15

1. Gargi Singh (16807259)
2. Mahesh Akavarapu (19111265)

8b. Motion Planning for a Quadcopter with Temporal Logic Specifications

Time: 2:41 pm – 3:15 pm

Speakers: Group 16

1. Aakash (19111261)
2. Shiv Bhushan Tripathi (19211271)