



BHARATIYA VIDYA BHAVAN'S  
**SARDAR PATEL INSTITUTE OF TECHNOLOGY**  
MUNSHI NAGAR, ANDHERI (WEST), MUMBAI – 400 058.  
(Autonomous College Affiliated to University of Mumbai)

## Research and Development Committee

### Technical Paper Presentation Competition-Nov. 2020 (Category 1)

*Dates of Competition:* 5th and 6th Nov 2020

**Department Name: Information Technology**

#### Departmental Report

Competition was conducted at the Departmental level among the students of B. Tech. IT, on 5th and 6th Nov 2020 in the IT department. From IT, 20 groups (58 students) participated for this event. Prof. Jyoti Ramteke, Prof. Reeta Koshy and Prof. Abhijeet Salunke from Computer Engineering Department were the judges for this competition in the Information Technology Department.

Competition was conducted via online mode using Google Meet as per the following schedule:

<b>Group Nos.</b>	<b>Date, Day</b>	<b>Time-slot</b>	<b>Judge Name</b>	<b>Meet Link</b>
C1.1-C1.7	6-Nov, Friday	11.15am-1.15pm	Prof. Jyoti Ramteke	<a href="https://meet.google.com/hmb-ksdz-kac">https://meet.google.com/hmb-ksdz-kac</a>
C1.8-C1.11	5-Nov, Thursday	4pm-6pm	Prof. Reeta Koshy	<a href="https://meet.google.com/mer-toai-smh">https://meet.google.com/mer-toai-smh</a>
C1.12-C1.14	6-Nov, Friday	4pm-6pm	Prof. Reeta Koshy	<a href="https://meet.google.com/mer-toai-smh">https://meet.google.com/mer-toai-smh</a>
C1.15-C1.20	5-Nov, Thursday	4pm-6pm	Prof. Abhijeet Salunke	<a href="https://meet.google.com/buo-rdfk-pya">https://meet.google.com/buo-rdfk-pya</a>

Evaluation of the presentation was done using assessment sheet given by the R & D Committee. Also, parallel assessment was done on technical paper written by students. The top 2 best ranked groups were selected as winners from each department.

The Evaluation was done in two Phases:

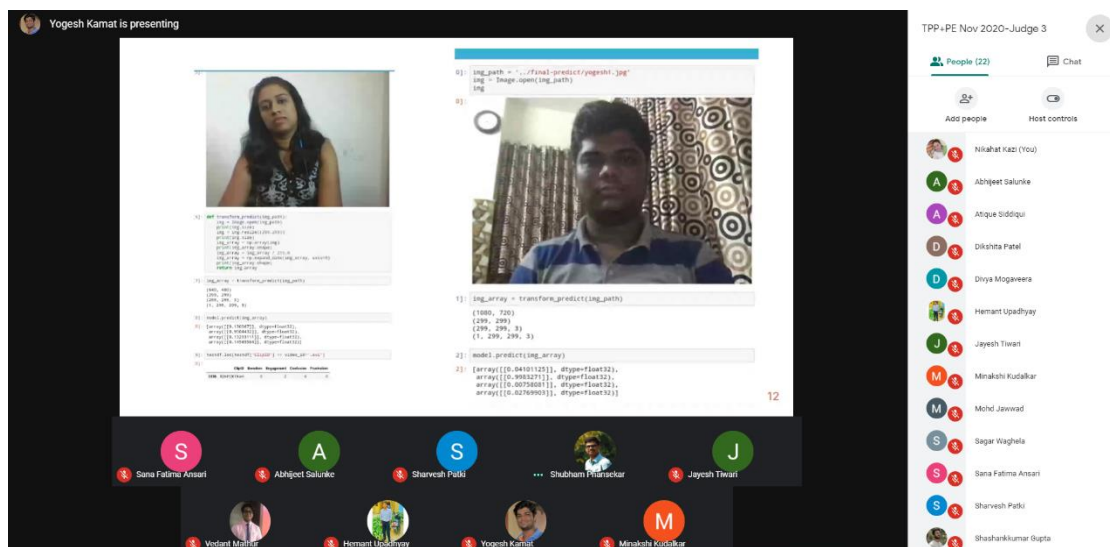
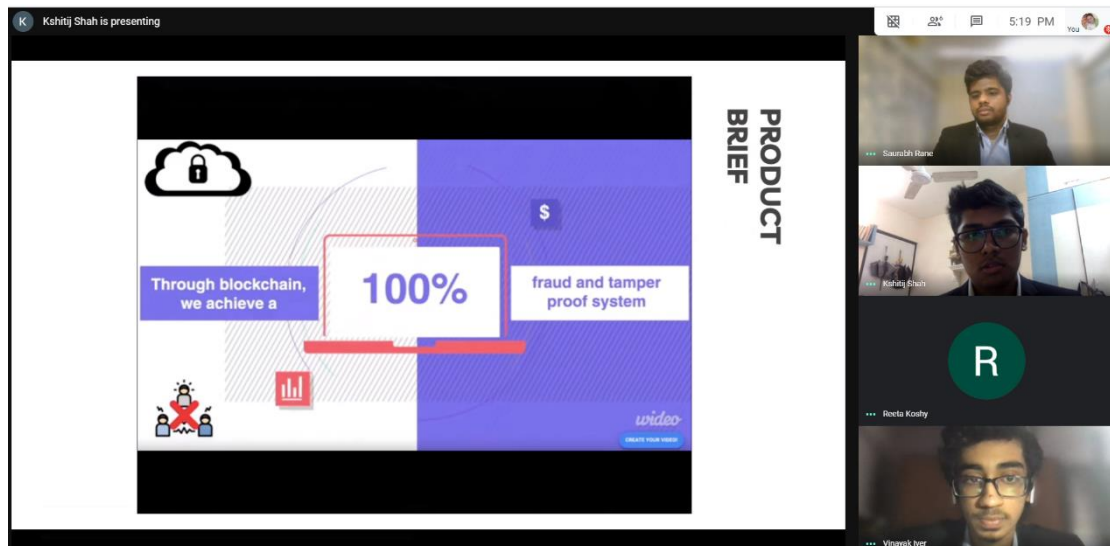
### A) Technical Paper Writing

Technical Papers written by the students were collected by 31<sup>st</sup> October 2020 and were given to judges along with pre-defined Rubrics for Technical Paper Writing for evaluation. Marks out of 25 were awarded to students under this segment on the basis of Rubrics for Technical Paper Writing.

### B) Technical Paper Presentation

Students were made to present the papers by means of PowerPoint Presentation for time limit not exceeding 7 minutes and additional 3 minutes were reserved for question-Answer session. Marks out of 25 were awarded based on the defined Rubrics for Technical Paper Presentation.

### Screenshots of Evaluation of student groups



Manas Sinkar is presenting

## Dataset Creation

- To make the dataset we used the classic A\* Path Finding Algorithm.
- Obtained optimal paths from random start points to random endpoints on a randomly generated environment or grid of dimension 50x50 cells
- A total of 100000 rows of the dataset was generated. A total of 24 input features and 1 output feature which serve as the dataset for training the model.
  - Up, Down, Left, Right
  - After Up Moves Possible, After Down Moves Possible, After Right Moves Possible, After Left Moves Possible
  - Current X, Current Y, Destination X, Destination Y
  - Euclidean Distance, Cos(Theta)
  - M1, M2, M3, M4, M5, M6, M7, M8, M9, M10
  - Move String, Move

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Based on the evaluation, following groups were declared as winners:

Rank	Group No.	UID	Student Name	Paper Title
1 <sup>st</sup> Prize	C1.3	2017140055	Harshit Singhania	Enabling MapReduce based Parallel Computation in Smart Contracts
		2017140028	Yash Muchhala	
		2017140052	Sahil Sheth	
2 <sup>nd</sup> Prize	C1.1	2017140057	Manas Sinkar	Multi-Agent Path Finding using Dynamic Distributed Deep Learning Model
		2017140032	Sai Nimkar	
		2017140027	Mohammad Izhan	

The departmental coordinator would like to thank Dr. Radha Shankarmani (Dean Q&A, SPIT), Dr. Prasenjit Bhavathankar (HOD, IT) and all the faculty members of the IT department for their encouragement and support for this event. Also, the departmental coordinator would like to specially thank Dr. Y. S. Rao, Dean R&D, SPIT for his continuous guidance and support.

Prof. Nikahat Mulla

Student Coordinator, R&D  
IT, S.P.I.T.