



DON BOSCO INSTITUTE OF TECHNOLOGY  
Department: Computers, IT, EXTC and Mechanical Engineering  
Department  
Event: INNOVEX 2021 BE Project Exhibition and Closing  
Ceremony  
Date of Event: 30th April, 1st May 2021 and 8th May 2021  
Section: Co-curricular activities- Event - Technical- INNOVEX

### **INNOVEX 2021 REPORT**

The FIFTH edition of the Final year Annual Project Exhibition 'INNOVEX 2021' presented by the B.E. undergraduate students were conducted in lines of DBIT's vision of producing employable engineers who can ideate and design solutions for problems relevant to both the society and industry. This year our students and faculty have together worked even harder to execute their project. They have faced a lot of challenges during this pandemic that has engulfed the world but nothing stopped our students or faculty from executing the projects and displaying their hard work.

INNOVEX is a platform for the final year students to showcase their year-long effort in their projects and help them in open-ended discussions and deliberations for improving the scope of the project. It also encourages the students to pitch their ideas & solutions in front of the judges from the Industry, Academia, Stakeholders, Parents, Industry Personnel, Alumni etc. Due to the COVID-19 Pandemic across the country, instead of having INNOVEX in physical space this time it was hosted virtually, we displayed the Annual Final year Exhibition on a website, innovex.dbit.in, this year. This initiative was taken up by Mr. Tayyabali Sayyad along with a student team. This website was linked to the DBIT website, so that we are able to reach a wider audience which includes our stakeholders, parents, industry personnel, alumni etc. All the project demonstration videos along with the project posters were exhibited. Respected Judges of each department evaluated the projects exhibited.

**INNOVEX 2021 - BE Projects of all departments were exhibited on 30th April, 2021 and 1st May, 2021** which was extended to 5th May 2021, followed by the **INNOVEX Closing Ceremony held on 8th May 2021. A response in the**

**form of feedback and ratings of more than 7000 views were recorded on the projects exhibited.**

A special award was given for the "**Viewers Choice Project**" which was selected based on the rating given to the projects by the visitors. INNOVEX 2021 was organised under the guidance of DBIT Principal, Dr. Prasanna Nambiar and with the support from the Heads of Departments and Project Coordinators of all departments - Ms. Sunantha K. (IT), Ditty V. (COMP), Freda C. (EXTC), Cleta P. & Mahesh R. (MECH).

### **COMPUTER ENGINEERING DEPARTMENT**

A total of **25** BE Computer final year projects were displayed on the website with the poster and video presentation link of each group. Projects were categorised in 4 categories under the Computer Engineering department section on the INNOVEX 2021 website as.

- i. Research
- ii. Emerging Technologies
- iii. Product development
- iv. Sustainability

In the Computer Engineering Department, projects were evaluated in 2 phases:

Phase 1: Internal Panel Evaluation (Dr. Amiya K. Tripathy, Dr. Phiroj Shaikh and Mr. Imran Ali Mirza)

In the Internal panel, projects not up to the mark were pruned out and the remaining projects were sent for External Panel Evaluation.

Phase 2: External Panel Evaluation (Ms. Nita Khare, Mr. Atul Gandre, Mr. Mustufa Fatakdawala)

External judges started the evaluation on 22nd April, 2021. The evaluation was completed and received on 2nd May, 2021.

A total of 1634 unique viewers' feedback was captured for the exhibition from 30th April to 5th May 2021 under the Computer Engineering Department of the INNOVEX 2021 website platform.

## **DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING**

**The Department of EXTC exhibited 22 BE Projects on 30th April, 2021 till 5th May, 2021.** Projects were categorised into 4 categories as follows:

- i. Research
- ii. Product development
- iii. Emerging Technology
- Iv. Sustainability

The Department of EXTC projects had 1222 viewers and the project of the viewers choice award was the project “Breast Cancer Detection and Segmentation using Deep Learning” with 163 views and high ratings.

Judges for INNOVEX 2021 for Dept of EXTC:

1. Mr. Hussain Neralwala, Logic Design lead, Graphics and Throughput Computing, Intel
2. Mr. Jitendra Chaurasiya, Hardware Executive Design Engineer Tata Advanced Systems Limited
3. Mr. Vikram Grewal, Manager, Larsen and Toubro Ltd.

Judges for Prof. D. Sundararajan Award- 2021 for Dept of EXTC:

1. Mr. Niraj Kini, Ph.D. Scholar Institution - National Yang Ming Chiao Tung University (NYCU), Taiwan
2. Mr. Gautam Rao, Lead For Digital Transformation & RoboticsKonica Minolta Business Middle East

The judges spent a week and a half in evaluation, the evaluation report of winners was created on May 7, 2021.

The representing judge for the closing ceremony was Mr. Hussain Neralwala. He shared his experience during the judging process and commended the students and staff for their excellent work in various domains.

T.E. EXTC students Vaibhav Parathe, Arka Dey, Shubhangi Katariyar, Ritik Kumar, Satyajit Behura, Manas Bhandarkar were volunteers for the event and supported the successful functioning of the event.

## **INFORMATION TECHNOLOGY DEPARTMENT**

A total of 26 B.E.(I.T.) Students' projects were displayed on the e- Innovex 2021 website. The website hosted each group's project poster and a video to demonstrate the working model developed by the students through a presentation link for each group. Projects were categorised into 4 categories as follows:

- i. Product development
- ii. Emerging Technology
- iii. Research
- iv. Sustainability

In the Information Technology Department projects were evaluated by 4 judges, panels were formed as shown below:

Panel 1 : Mr. James Baby Product Owner,J P Morgan Chase, Mumbai and Mr. Abhinav Jami Senior Manager, AWS Cloud, Greater Vancouver.

Panel 2 : Mr. Sanjay Ramanathan, Vice President, Goldman Sachs, New York and Mr. George Joseph, Technical Manager Accenture, Mumbai.

Judges started the evaluation on 15 April, 2021. The evaluation was completed and received on 30 April, 2021.

The total number of 1322 viewers feedback was captured from the exhibition held on 30 April, 2021 and 1 May, 2021 under the Information Technology Department of the e-INNOVEX 2021 website platform.

## **MECHANICAL ENGINEERING DEPARTMENT**

41 BE Mechanical final year projects were displayed on the website with the poster and video presentation link of each group. Projects were categorised in 4 categories under the Mechanical Engineering department section on the INNOVEX 2021 website as.

- i. Community Welfare
- ii. Sustainability
- iii. Product development
- iv. Research

In the Mechanical Engineering Department projects were evaluated by 4 judges, 2 panels were formed:

Panel 1 : Mr. Randal Nunes (Head - Powai Aerospace Operations at Missiles & Aerospace BU, L&T Defence, Larsen & Toubro) & Mr. Pranjal R. Kelkar (Product Engineer, Adient India Pvt. Ltd.)

Panel 2 : Mr. Gaurang Ghanekar (Engineering Manager, STRR Engineering Co. Ltd., Bangkok, Thailand) and Mr. Rajesh Ramaswamy (Director, SKB Machine Tools)

Judges started the evaluation on 27th April, 2021. The evaluation was completed and received on 6th May, 2021.

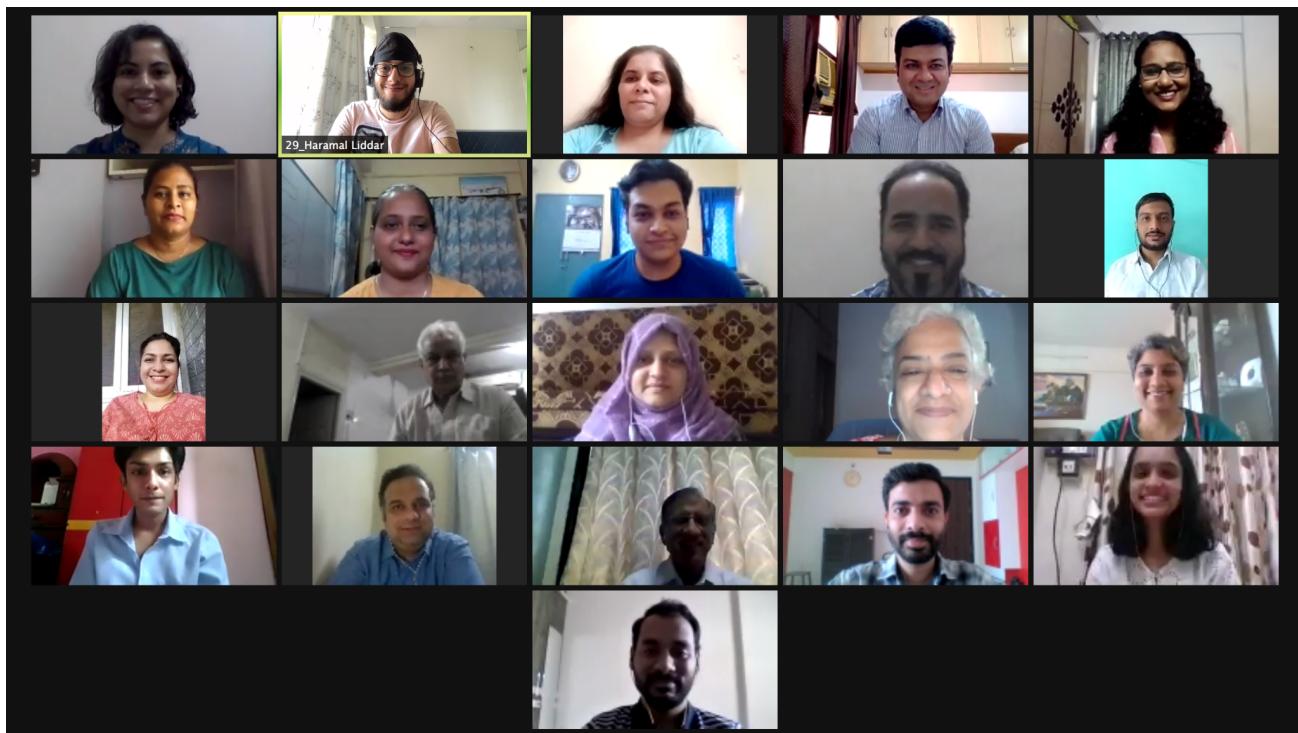
The total number of around 2800 unique viewers feedback was captured for the exhibition from 30th April to 5th May 2021 under the Mechanical Engineering Department of the INNOVEX 2021 website platform.

### **INNOVEX 2021 CLOSING CEREMONY**

The INNOVEX 2021 Closing Ceremony was organised on 8th May, 2021 on the zoom platform with live streaming on Youtube link -

<https://youtu.be/N8CnjApUF-o>.

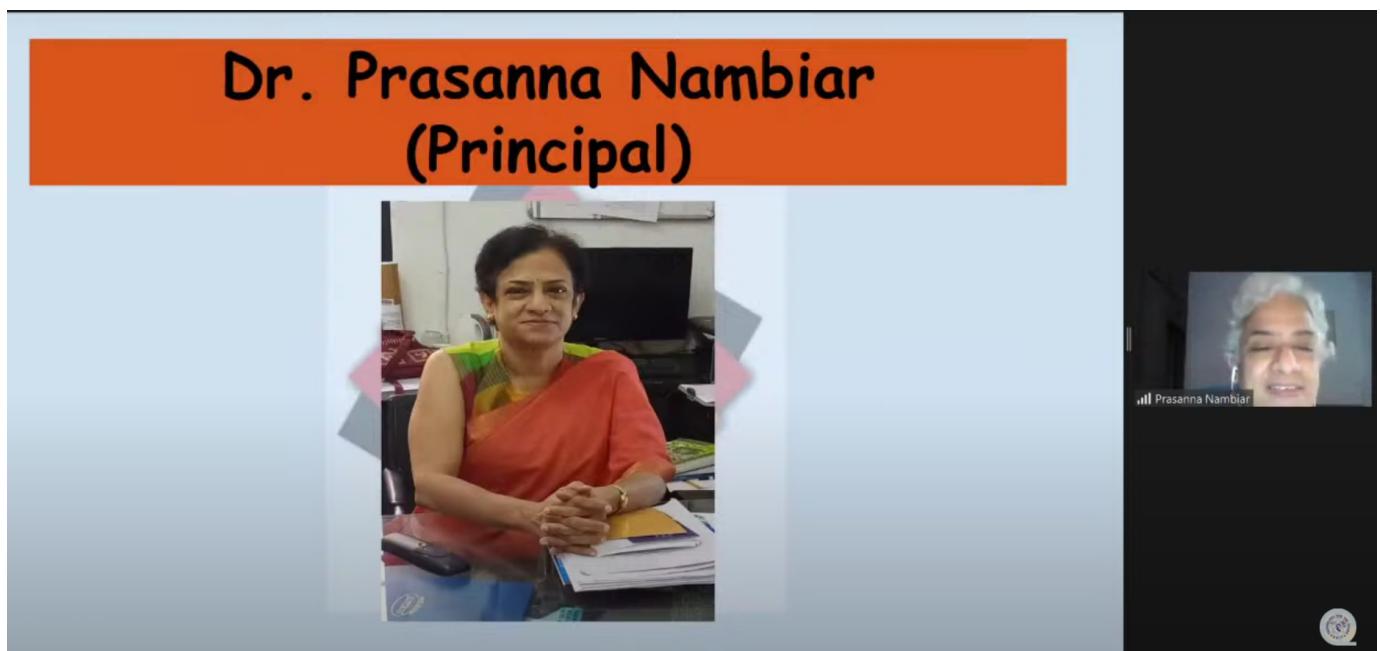
The participants on the zoom app for the INNOVEX 2021 Closing Ceremony:



The ceremony started with a small video presentation showing the various highlights of e-INNOVEX 2021, from the platform of the website made available to showcase the projects, the brochure and the various teams that helped make INNOVEX 2021.



After the highlights were displayed, the ceremony continued with a welcome note by Dr. Prasanna Nambiar, Principal, DBIT.



A screenshot of a video conference interface. At the top, a blue banner displays the name "Dr. Prasanna Nambiar (Principal)" in white text. Below the banner, on the left, is a photograph of a woman with short dark hair, wearing a bright orange sari with a yellow border, sitting at a desk and holding some papers. On the right, there is a smaller video feed of a man with grey hair, wearing a dark shirt, who appears to be speaking. The overall background is light blue.

Next we had one judge from each department of the Computer Engineering Department, EXTC, Information Technology Department and the Mechanical Engineering Department who shared their feedback and experience of judging the various projects exhibited by the final year students of the respective departments. The judges, Ms. Nita Khare (COMPs Department), Mr. Hussain Neralwala (EXTC Department), Mr. James Baby (IT Department) and Mr. Rajesh Ramaswamy (MECH Department) gave their feedback on the projects evaluated and gave inputs on how the projects can be improved and what kind of projects are sought after in today's world.

## Judges of Computer Engineering Department

Mr. Atul Gandre	Ms. Nita Khare	Mr. Mustafa Fatakdawala
		
Global Head - Emerging Technologies (EmTech), Cognitive Business Operations, T&I - TCS	Global Lead - Emerging Technologies (EmTech), Cognitive Business Operations, Technology & Innovation- TCS	Data Scientist & Solution Architect (TCS)

## Ms. Nita Khare

- Global Lead - Emerging Technologies (EmTech), Cognitive Business Operations, Technology & Innovation-TCS
- TCS Golden Guru - Technocrat Award - Feb 2021- For contribution towards Technology.
- IBM Champion 2012, 2013, 2014, 2015, 2016 2017, 2018 \*
- Global IBM Analytics Lead at TCS, IBM SW Solutions Lead and Analyst Lead at TCS, IBM Information Management Lead at TCS, Cognos Architect, Cognos CoE Lead, BI Solution Architect, TOGAF Certified, Certified Cloud Architect



## Judges of EXTC Engineering Department

Mr. Hussain Neralwala	Mr. Jitendra Chaurasiya	Mr. Vikram Grewal
A portrait photograph of Mr. Hussain Neralwala, a man wearing a blue cap and sunglasses, standing outdoors in front of a building.	A portrait photograph of Mr. Jitendra Chaurasiya, a man with a beard, wearing a maroon shirt, standing outdoors.	A circular portrait photograph of Mr. Vikram Grewal, a man in a suit and tie, standing indoors.
Logic Design lead, Graphics and Throughput Computing, Intel	Hardware Executive Design Engineer Tata Advanced Systems Limited	Manager, Larsen and Toubro Ltd.

## Mr. Hussain Neralwala

- 10 years of experience, working on SoC chip cycle starting from micro-architecture to RTL design, silicon bring-up, characterization, and final support for the SW, QA teams.
- Mr. Neralwala has worked on chips which serve various domains like networking, mobile SoC supporting 5G, connectivity solutions for Artificial Intelligence, Machine learning problems.



## Judges for Prof. D.Sundarajan Award for Dept of EXTC

Mr. Niraj Kini



Mr. Gautam Rao

Special  
Jury



Ph.D. Scholar Institution -  
National Yang Ming Chiao  
Tung University (NYCU),  
Taiwan

Lead For Digital  
Transformation &  
RoboticsKonica Minolta  
Business Middle East

# Judges of IT Engineering Department

Mr. Sanjay Ramanathan	Mr. George Joseph	Mr. Abhinav Jami	Mr. James Baby
			
Vice President Goldman Sachs, New York	Technical Manager Accenture, Mumbai	Senior Manager AWS Cloud, Greater Vancouver	Senior Associate J P Morgan Chase & Co.

## Mr. James Baby

- Senior Associate, at JPMorgan Chase & Co, with 10+ years of experience in delivering projects.
- Currently working on Regulatory Reporting/Vendor Management.



### His areas of expertise :

Scrum Agile (PO/SM) / Waterfall	Prod. Development / Ownership	Business Analysis
Inv. Banking	Reg. Reporting	Internal / Industry Wide Projects
Change / Strategic Rollout	User Experience / Integration	Program / Project Management



# Judges of Mechanical Engineering Department

Mr. Gaurang Ghanekar	Mr. Randal Nunes	Mr. Pranjal R. Kelkar	Mr. Rajesh Ramaswamy
			
Engineering Manager, STRR Engineering Co. Ltd., Bangkok, Thailand	Head - Powai Aerospace Operations at Missiles & Aerospace BU, L&T Defense, Larsen & Toubro	Product Engineer, Adient India Pvt Ltd	Director, SKB Machine Tools

## Mr. Rajesh Ramaswamy

- Director at SKB Machine Tools
- Currently representing Japanese & German CNC Machine companies in Indian market, namely Grinding, Superfinishing, Polishing Machines.
- Trained in Japan on their best practices like ANZEN DAIICHI (Safety 1st), JIT, Process Engineering, Maintenance Techniques, 5S etc.
- Interviews published in Aeromag (Aviation magazine) and Auto Components Magazine in 2017.
- Nominated & selected for Industrial visits to Japan twice by Government of Japan 2014 (Kanazawa) and 2017 (Toyama) trips fully sponsored by JETRO/Government of Japan.



The Executive director DBIT Rev. Fr. Mario Vaz shared his views on INNOVEX 2021.

**Rev. Fr. Mario Vaz  
Executive Director**



  
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Next the winners were announced by the HOD's of the respective departments.

Ms. Sana Shaikh, HOD of Computer Engineering Department, announced the winners of the COMP's Department:

**Ms. Sana Shaikh  
( Head - Computer Department)**



  
Sana Shaikh

The winners for INNOVEX 2021 from Computer Engineering Department are:

<b>Rank</b>	<b>Project Title</b>	<b>Project Guide</b>	<b>Student Team</b>
1	AR Smart Navigation System	Ms. Priya Kaul	Kevin Dsa Tina Sayagopu
2	Student Attention Monitoring System using Python and Computer Vision	Dr. Amiya K. Tripathy	Alan Tom Sasha Pais Tejaswini Kshrisagar
2	DAASH-Drop Attack Alert System for Home Environment	Ms. Sejal Chopra	Lourd Bharathy Samara Pires Sonia Rodrigues
3	Enhancing Deep Fingerprinting Attack On Tor Network Using Lottery Ticket Hypothesis	Ms. Sana Shaikh	Sayali Kadam Vaibhav Mishra Sarthak Tripathi
Viewer Choice Award	Nutrition lookup system for home cook food vendors using NLP.	Ms. Ditty Varghese	Wayne Fernandes Harshada Daund Vaishnavi Gadgil

**e-Innovex 2021 - Comps.**

**"AR Smart Navigation System"**  
**Project Guide : Ms. Priya Kaul**

**Kevin Dsa**



**Tina Sayagopu**





## e-Innovex 2021 - Comps.



“Student Attention Monitoring System using Python & Computer Vision”

Project Guide : Dr. Amiya K. Tripathy

Alan Tom



Sasha Pais



Tejaswini K.



## e-Innovex 2021 - Comps.



“DAASH-Drop Attack Alert System for Home Environment”

Project Guide : Ms. Sejal Chopra

Bharathy Lourd



Samara Pires



Sonia Rodrigues



e-Innovex 2021 - Comps.

3<sup>rd</sup>

**"Enhancing Deep Fingerprinting Attack On To Network Using Lottery Ticket Hypothesis"**

Project Guide : Ms. Sana Shaikh

Sarthak Tripathi



Sayali Kadam



Vaibhav Mishra



e-Innovex 2021 - Comps.  
Winners - "Viewers Choice"

**"Nutrition Lookup System for Home-cooked Food vendors using NLP"**

Project Guide : Ms. Ditty Varghese

Harshada D.



Wayne F.



Vaishnavi G.



Dr. Ashwini Kotrashetti, HOD of Electronics & Telecommunication Engineering Department, announced the winners of the EXTC department:



The winners for INNOVEX 2020 from Electronics & Telecommunication Engineering are:

Rank	Project Title	Project Guide	Student Team
1	LoRaWAN Enabled Remote Solar Photo Voltaic Energy Monitoring System	Mr. Jithin Isaac	Keith Barnes Aparna Kulkarni Shreyas Kulkarni Adish Sthalekar
2	Vitaran Drone	Mr. Yogesh Gholap	Atharva Bondre Bhushan Kolhe Cromwell Mendes Harshal Rathod
3	Wireless Charger for Electric Vehicles	Dr. Ashwini Kotrashetti	Royston Carvalho Ethan Gomes Larry Pereira Prathik Rao

Viewer Choice Award	Breast Cancer Detection and Segmentation using Deep Learning	Dr. Satishkumar Chavan	Minita Joshee Amaan Nizam Abhiram Pillai Anne Pinto
Prof. D. Sundararajan Award	Design & Development of Mobile handset antenna for optimum SAR for Mobile Communication System	Ms. Freda Carvalho	Sebastian Josi Ashita Serrao Srishti Singh

## First Prize Winners of INNOVEX 2021 in Dept of EXTC

LoRaWAN Enabled Remote Solar Photo Voltaic Energy Monitoring System



**Guide: Mr. Jithin Isaac**

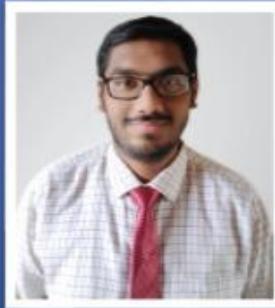
## e-Innovex 2021 - EXTC.



"Vitaran Drone"

Project Guide : Mr. Yogesh Gholap

Atharva Bondre Bhushan Kolhe Cromwell Mendes Harshal Rathod



## e-Innovex 2021 - EXTC.



"Wireless Charger for Electric Vehicles"

Project Guide : Dr. Ashwini Kotrashetti

Royston Carvalho Ethan Gomes

Larry Pereira

Prathik Rao



## e-Innovex 2021 - EXTC. Winners - “Viewers Choice”

“Breast Cancer Detection and Segmentation using Deep Learning”

Project Guide : Dr. Satishkumar Chavan

Minita Joshee Amaan Nizam Abhiram Pillai Anne Pinto



## e-Innovex 2021 - Prof. Sundarajan Award

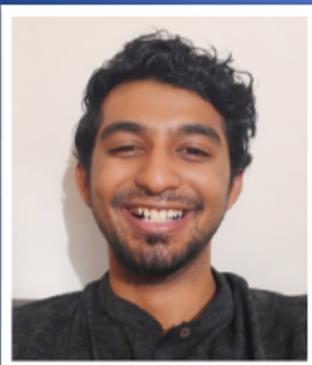
“Design & Development of Mobile handset antenna for optimum SAR for Mobile Communication System”

Project Guide : Ms. Freda Carvalho

Sebastian Josi

Ashita Serrao

Srishti Singh



Ms. Janhavi Baikerikar, HOD of Information Technology Department, announced the winners of the IT department:



The winners of e-INNOVEX 2021 from Information Technology Department are:

Rank	Project Title	Project Guide	Student Team
1	Block chain in Healthcare	Ms Anagha S.	Viraj Tandel Winston Sequeira Saurabh Yadav
2	SmartDoc	Ms Aruna	Cindy Rodrigues Gismi Pandari Harshal Satote
3	Pothole detection & Location	Mr.Prasad P.	Xavier D'Souza Shreya Ghute Srushti Satardekar
Viewers Choice-Project Award	Proposing Value Based Strategy for B2B Data Exchange	Ms Sunantha K.	Gianna Drego Ishmeet Kaur Mushira Shaikh

## e-Innovex 2021 - IT.

“Block Chain in Healthcare”  
Project Guide : Ms. Anagha Shastri



Viraj Tandel



Winston Sequeira



Saurabh Yadhav



## e-Innovex 2021 - IT.

“Smart Doc”

Project Guide : Ms. Aruna Khubalkar



Cindy Rodrigues



Gismi Antony



Harshal Satote

e-Innovex 2021 - IT.



"Pothole Detection & Location"  
Project Guide : Mr. Prasad Padalkar

Shreya Ghute



Shrushti Satardekar



Xavier D'Souza



## e-Innovex 2021 - IT. Winners - "Viewers Choice"

" Proposing VBP Strategy for B2B Data Exchange"

Project Guide : Ms. Sunantha Krishnan

Gianna Drego

Ishmeet Kaur

Mushira Shaikh



Dr. Shashikant Pawar, HOD of Mechanical Engineering Department, announced the winners of the Mech department:



The winners for INNOVEX 2020 from Mechanical Engineering Department are:

Rank	Project Title	Project Guide	Student Team
1	Paper Box Making Machine	Mr. Johnson Nellisery	Nihar Chavan, Anjaney Thakur and Aditya More,
2	A Novel Approach for Sustainable Handling and Disposal of Sanitary Pads	Dr. Prasanna Nambiar	Amol Nagpure, Priti Warang, Sanjana Nandanvar, Pratibha Sharma
2	Bio-Mimetic Flapping Wing Mechanism	Dr. Shashikant Pawar	Joel Nazareth, Awaiz Shaikh, Sagar Save and Shanuk Shetty
3	An Approach to Aid Mobility in Parkinson's Disease patients	Dr. Prasanna Nambiar	Daniel Paliakkra, Noel Sequeira, Yash Majithia and Siddharth Shetty

Consolation	Design of Smart Incinerator with Catalytic Converter Attachment	Mr. Johnson Nellisery	Kenneth Dmello, Swapnil Tuscano, Seraj Tuscano and Aren Almeida
Consolation	Design & Manufacturing of Dual Injection Nozzle for 3D Printer	Mr. Swapnil Gujarathi	Ameya Carvalho, Samuel Dsilva, Jason Dsouza and Brannon Pinto
Viewer Choice Award	Design of Natural Cooling System for Urban Requirements	Dr. Prasanna Nambiar	Sheena Fernandes, Akshat Choudhary, Shaun Dsouza and Clavin Colaco

**e-Innovex 2021 - Mechanical.**

**“Paper Box Making Machine”**

**Project Guide : Mr. Johnson Nellisery**

**1st**

**Nihar Chavan**



**Anjaney Thakur**



**Aditya More**



**e-Innovex 2021 - Mechanical.**



**"A Novel Approach for Sustainable Handling & Disposal of Sanitary Pads"**

**Project Guide : Dr. Prasanna Nambiar**

Amol Nagpure



Priti Warang



Sanjana Nandanvar



Pratibha Sharma



**e-Innovex 2021 - Mechanical.**



**"Bio-Mimetic Flapping Wing Mechanism"**

**Project Guide : Dr. Shashikant Pawar**

Joel Nazareth



Awaiz Shaikh



Sagar Save



Shanuk Shetty



e-Innovex 2021 - Mechanical.



"An Approach to Aid Mobility in Parkinson's Disease patients"

Project Guide : Dr. Prasanna Nambiar

Daniel Paliakkra Noel Sequeira Yash Majithia Siddhartha Shetty



e-Innovex 2021 - Mechanical.



"Design of Smart Incinerator with Catalytic Converter Attachment"

Project Guide : Mr. Johnson Nellisery

Kenneth Dmello Swapnil Tuscano Seraj Tuscano Aren Almeida



## e-Innovex 2021 - Mechanical.



**"Design & Manufacturing of Dual Injection Nozzle for 3D Printer"**

Project Guide : Mr. Swapnil Gujarathi

Ameya Carvalho



Samuel Dsilva



Jason Dsouza



Brannon Pinto



## e-Innovex 2021 - Mechanical. Winners - "Viewers Choice"

**"Design of Natural Cooling System for Urban Requirements"**

Project Guide : Dr. Prasanna Nambiar

Sheena Fernandes



Akshat Choudhary



Shaun Dsouza



Clavin Colaco



The INNOVEX 2021 Closing Ceremony ended with a vote of thanks by Ms. Ditty Varghese, Project Coordinator, Computer Engineering Department.

A presentation slide with a blue background. At the top, an orange bar contains the white text "Vote of Thanks". Below this, on the left, is the text "Ms. Ditty Varghese" and "(Project Committee Member)". To the right is a photograph of a woman with dark hair and glasses, wearing a denim jacket over a red shirt. On the far right of the slide is a small video feed showing the same woman, identified as Ditty Varghese, smiling. The video feed has a black border and includes a small circular logo in the bottom right corner.

Prepared by:

Ms. Cleta Pereira and Mr. Mahesh Rajwade- Project Coordinators, Mechanical Engineering Department

Ms. Ditty Varghese - Project Coordinator, Computer Engineering Department

Ms. Freda Carvalo - Project Coordinator, EXTC Department

Ms. Sunantha Krishnan - Project Coordinator, IT Department