# L. D. College of Engineering, Ahmedabad-380015 Information Technology Department, KAIZEN 2K21 Departmental Report

Date: 23/4/2021

Information Technology focuses on the design of technological information systems, including computing systems, solutions to business, analysis of research data, and communications support needs. It also includes computer software components, algorithms, databases, telecommunications, user tactics, application testing, and human interface design. The prime motto was to provide an opportunity and stimulate students for exchanging ideas, opinions, and share experiences and various approaches towards problem-solving.

Kaizen - Japanese word for "continuous improvement". It is the practice of continuous improvement. Kaizen process aims at continuous improvement of processes not only in the manufacturing sector but all other departments as well. Implementing Kaizen tools is not the responsibility of a single individual but involves every member who is directly associated with the organization. KAIZEN – 2021 was conducted ONLINE by the Information Technology Department with great enthusiasm and support of all faculty members and students.

There were 48 projects from UG (BE), 14 from PG (ME), and 17 from MCA in the exhibition and evaluated by industry & academic experts.

### **Details are following:**

No of students participated: 144(UG) + 14(PG ME) + 28(MCA)

No of projects: 48(UG) + 14(PG) + 17(MCA)

**Experts: (UG)** 

Experts: (c	experts. (Od)			
Sr No.	Track	Name		
1	Track 1	Dr. Ashish Shukla		
2	Track 2	Mr. Dhawal Banker		
3	Track 3	Mr. Anirudh Bhilware		
4	Track 4	Mr. Dhruten Dhanani		

### **About Experts:**

### Track 1:

Dr. Ashish K Shukla, is a senior scientist at Space Applications Centre, ISRO Ahmedabad. He has joined SAC ISRO in the year 2005. He has immensely contributed towards the development of India's two satellite navigation programs: GAGAN and NavIC or IRNSS. He is currently Deputy Project Director of Pseudolite Based Navigation System for the RLV project of ISRO. He has more than 40 publications in peer-reviewed journals and conferences. He is also the recipient of the National Geomatics Award: Technology of ISG and ISRO team excellence award.

### Track 2:

Mr. Dhawal Banker is currently CTO at Shoonya Games Technologies, Pune. After graduating from LDCE IT 2007 with immense interest in Computer Graphics, he did his M. Tech. from Computer Science, IIT Bombay with a major focus on Applied Algorithms and Computer Graphics. Pursuing his interest he joined Nvidia Graphics Pvt ltd and worked with a startup Auryn where he was involved in developing application products for non-photorealistic animations. Later he started working with Shoonya Games Technologies where he helps make Smart Factories solutions for Industry 4.0 using Augmented and Virtual reality technologies.

### Track 3:

Mr. Anirudh Bhilware is currently working as Tech Lead at Netrix Worldwide at Pune since July 2017. He develops mobile applications for Android and iOS mainly. Apart from these, He is responsible for developing third-party integrations, API design, and web apps sometimes. Before this, He had worked as a tech lead at Ecosmob Technologies in Ahmedabad.

Total-experience: 6+ years

Key skills: Android, iOS, Java, Firebase, VoIP, Angular, and third-party APIs and tools integrations.

### Track 4:

Mr. Dhruten Dhanani has 7+ years of experience in web and API development.

He Started working for Ecosmob Technologies in Ahmedabad in 2013, worked there for almost 6 years.

Currently, he remotely working for a Canada-based product development company, Halight Inc. as a Team Lead.

His technology stack is PHP MVC, MySql, ReactJS, and many more.

Total Tracks: 4 UG + 3 PG + 3 MCA

Timing: 11:00 AM onwards on 19/4/2021

Platform /mode: Online on MSTeam.

Sr N	Links	BE/ME	Tracks	Date	Time
О					
1	https://bit.ly/3uQ2mEu	BE	track1	19 <sup>th</sup> April,2021	11.00AM onwards
2	https://bit.ly/3srktPG	BE	track2	19 <sup>th</sup> April,2021	11.00AM onwards
3	https://bit.ly/2PYd7pE	BE	track3	19 <sup>th</sup> April,2021	11.00AM onwards
4	https://bit.ly/3smkOmD	BE	track4	19 <sup>th</sup> April,2021	11.00AM onwards
5	https://bit.ly/2RALOC6	ME	track1	22 <sup>nd</sup> April,2021	11.00AM onwards
6	https://bit.ly/3tzZwSQ	ME	track2	22 <sup>nd</sup> April,2021	11.00AM onwards
7	https://bit.ly/2R0wYoG	ME	track3	22 <sup>nd</sup> April,2021	11.00AM onwards
8	https://bit.ly/3tEda8z	MCA	track1	23 <sup>rd</sup> April,2021	11.00AM onwards
9	https://bit.ly/2QIriz9	MCA	track2	23 <sup>rd</sup> April,2021	11.00AM onwards
10	https://bit.ly/3sCWCfT	MCA	track3	23 <sup>rd</sup> April,2021	11.00AM onwards

### <u>UG:</u>

ReportSheet Kaizen-2021:BE Track 1			
Faculty Coordinator: Prof. Madhuri Patel Time: 11:00 AM onwards			
Date: 19/4/2021	Expert: Dr. Ashish K Shukla		

Around 12 teams were there in this meeting. All the participants presented their ideas and innovative approach with their problem statements. There were many interesting and new projects which caught the eyes of other students too. After each presentation and live demo of their project expert, Dr. Ashish sir asked questions related to their projects. The discussion was so informative and fun that other students were enjoying it too. There was a project of Indoor AR system which caught the eyes of lots of people as the technology was new and everyone was curious about how and where it can be used. There were projects related to Health issues in which they made an application as a solution, another was a website for artists, then a movie recommending app. So there were projects related to our daily routine life as well as research-related. Some of the interesting projects are listed below:

### 1. DPRS

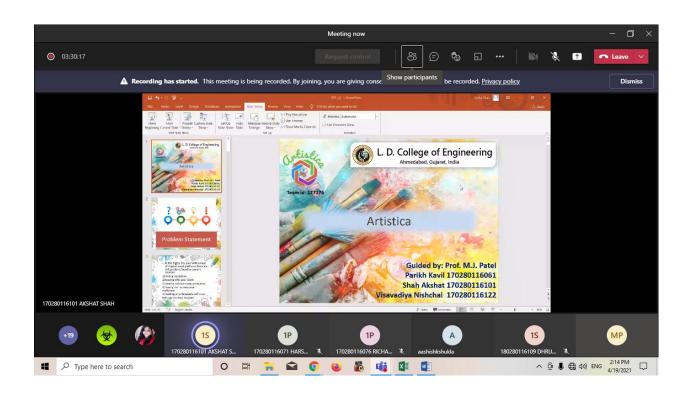
DPRS can mainly be operated in the Health Care domain to provide rapid resources i.e. Financial Help, Medical History of the patient to carry out successful treatment in the urgency of the people in need. Works as a central application to all types of users. It can be helpful to the doctors who practice in Clinics to manage their patients. Patients can easily seek the help of Welfare Trusts and NGOs to meet the financial needs. Keeps the Medical History of the registered patient and can be utilized under particular circumstances by only an Authorized Operator. The project used tools & technology like Python, Django, SQLlite3, HTML, CSS, Javascript.

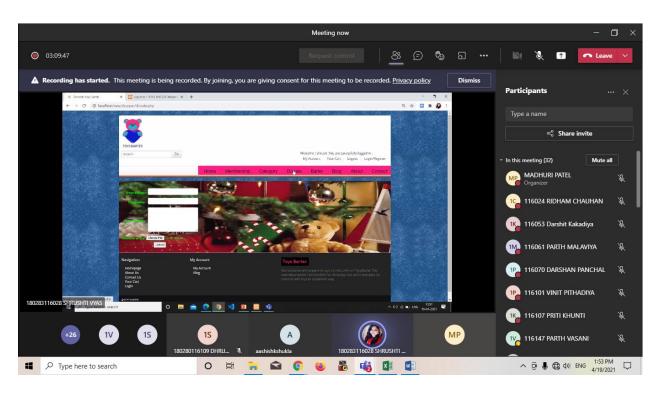
### 2. Questgenix.AI

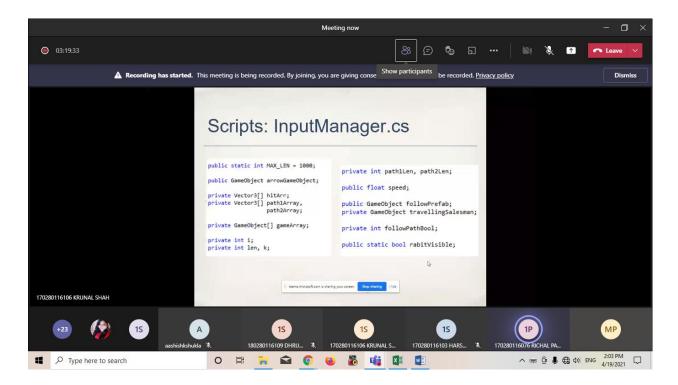
The goal of Questgenix.AI is to create a legitimate and fluent question based on the passage and the intended answer. Questgenix.AI has many purposes, the most prevalent of which is the ability to produce rapid assessments of any given content. It will allow school teachers and university professors to easily generate exam papers from every given chapter and reduce their workload. Our system provides features such as automatically extracting text from a photo for evaluation purposes, enabling the types of questions to be selected, allowing the number of questions to be produced, allowing the generation of a School/University paper style question paper with an OMR sheet, if specified, it also generates an Evaluation Answer sheet. The project used tools & technology like Python, flask, nltk, html, css, js, colab.

### 3. Artistica

The project aims at empowering artists and gives better analytics and all-in-one portal so that the learning curve for less digital literate people is less steep. It makes use of existing Platforms and integrates well as well as gives a wide range of fair and better Employment Opportunities. The project aims to integrate various social platforms and give them the best of AI and NLP technologies and analytics to transform their carriers and also for the advertisers who want to hire content creators. The project used tools & technology like HTML, CSS and JS, Bootstrap-4, Leaflet JS for Maps and Charts for Graphs, Nsfw.js for content, moderation, Python Language as the main back-end, Django Web Framework, Tensorflow for Machine Learning, Open-CV, PIL for Image Processing, SQLite Database and Django Database API for Database







ReportSheet Kaizen-2021:BE Track 2			
Faculty Coordinator: Prof. P.R.Patel	Time: 11:00 AM onwards		
Date: 19/4/2021	Expert: Mr. Dhawal Banker		

Mr. Dhaval Banker, CTO at Shoonya Games Technologies, Pune has worked as a jury member of the track-2. Around 12 different project groups were included in this track. Various projects presented in this track were Questgenix.AI, Sentiment Analyzer, Work Analytics using Deep Learning, Traffic Monitoring System, Discrete Entity Discernment and Motion Interpretation using DNNs with Machine Learning, Transparent and Genuine Charity Application, Podcast for all, Alexa Based Online Interview System, Image Description, Voice-based banking system, Boutique store management system, College inquiry chatbot. The entire session of the project presentation was very interactive. During the session, jury members gave valuable comments and suggestions to all the students to improve their project. Apart from students of track2, other students also remained present in the session.



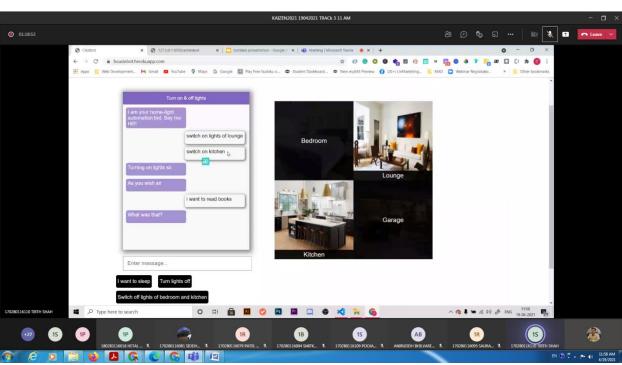


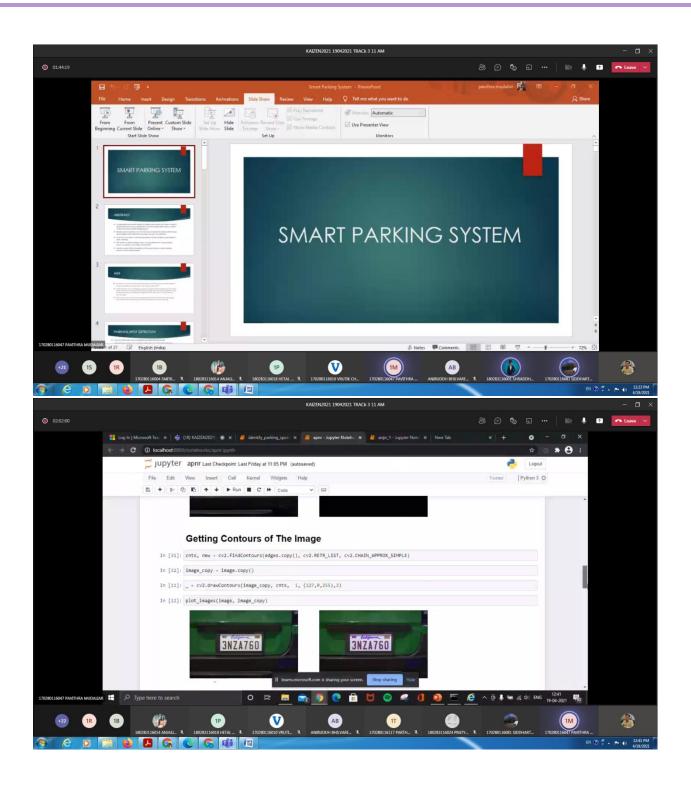
ReportSheet Kaizen-2021:BE Track 3			
Faculty Coodinator: Prof.J.B.Chavda	Time: 11:00 AM onwards		
Date: 19/4/2021	Expert: Mr. Anirudhh Bilware		

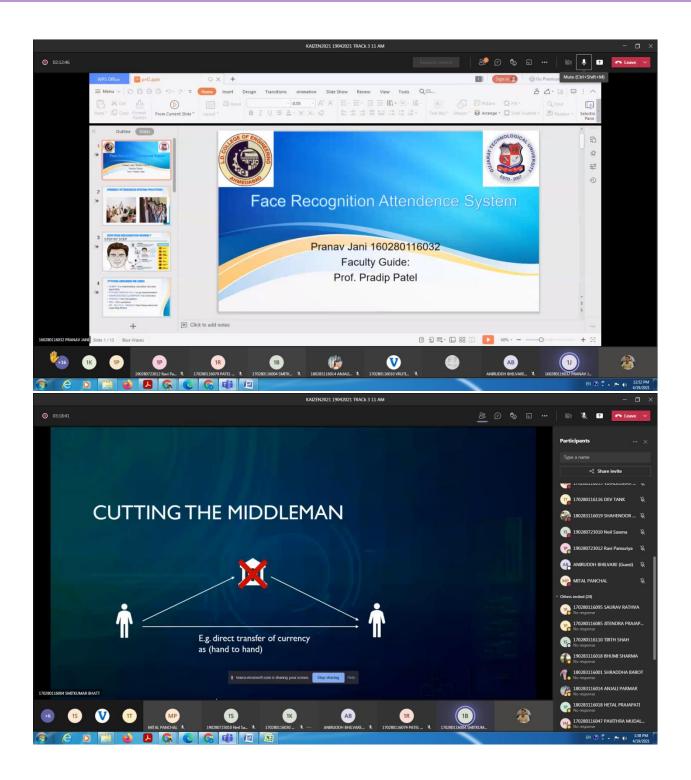
## Project List

- 1. Hostelar
- 2. AR based AI assistant
- 3. E Learning Based On Cloud Computing
- 4. Smart Parking System
- 5. FACE RECOGNITION ATTENDENCE SYSTEM
- 6. College Buddy
- 7. Blockchain Cryptocurrency
- 8. Student Portel
- 9. AI Based Crop Disease Detection
- 10. Wafer fault detection
- 11. Image Caption Generator
- 12. OBJECT DETECTION USING PYTHON



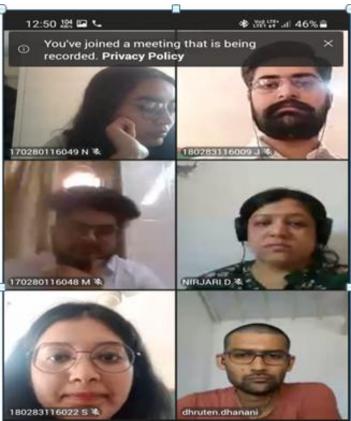






ReportSheet Kaizen-2021: BE Track 4				
Faculty Coodinator: Prof.N.P.Desai Time: 11:00 AM onwards				
Date: 19/4/2021	Expert: Mr. Dhruten Danani			

Track – 4 of Kaizen 2K21 held under the leadership of Prof. N. P. Desai, Asst. Prof., IT Dept. Started at 11 am with the Expert of the jury Mr. Dhruten Dhanani, alumni of LDCE as well as Team Lead at Halight Inc., a Canada-based product development company. Throughout total 11 groups of projects had been demonstrated by the team leader of the final semester with their all team members. Some students had prepared PowerPoint presentations and demo in the form of video while others had shown live projects online. The expert had asked many questions related to their dataset, area, developing platform, usefulness to society, as well as their future scope by deep observation across the event and, gave meaningful, useful, and real-time practical suggestions full of motivation and guidelines to go further. Students also found good directions to move ahead under his expert knowledge and promised to continue their projects even after completion of their academic term. Some innovative and creative projects found during kaizen – 2k21 was Difabled – Platform for differently-abled people, Notarization in BlockChain, Smart Bin, Track the Track, Algorithm Trading using Machine Learning, etc. Among all, Track the Track was selected as the best project in track - 4 and got 2<sup>nd</sup> rank in the Kaizen - 2k21 open house event of the IT department. It was regarding a smart information system proposed using detection of autonomous vehicles by recognizing various sensors, microcontrollers, and metal detectors that detect a crack in the railway track. Additionally, it had the capability of fetching the location of the crack by tracking the latitude and longitude coordinates using a GPS module and immediately send alerts through SMS using the GSM module. This project was very much liked by experts and inspired them to go ahead on the right track and asked for sustainable real-time development of it. Overall expert praised all projects of students under the track and shown directions for the future and concluded the open house event by showing his support for any projects anytime and provided best wishes to students.



# Winners:

UG:

1. DPRS	Student Name: Panchal Manan Punad Tushar Rathod Krushnaraj Rathod Vipul
	Guide Name: Dr. P. N. Ramanuj
2. Track the Track	Student Name: Shah Priyal M. Thakkar Dhwani Jadeja Abhijeetsinh Shah Anshini  Guide Name: Prof. B. B. Panchal
3. Image Description	Student Name: Patel Dhruvik Jotaneeya Dhaval Patel Parth Gohil Hardikkumar  Guide Name: Prof. V. B. Thakkar

# PG (ME) Projects:

Date:22/04/2021

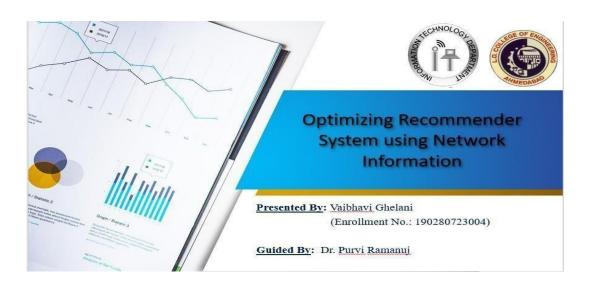
The Information Technology department of L.D. College of Engineering Organized "ProjectEvaluation Kaizen 2K-21" (online mode) for Post Graduate students on 22<sup>nd</sup> March 2021.

### Track 1: Expert: Prof. Hetal Joshivara

This track had 5 participants including students and faculties from ME courses. Chintan Chatterjee and Shivangi Gandhi were the student coordinators of this event. The event was held by Prof. Hetal Joshiyara. She is an Assistant Professor in the Computer Engineering Department at LD College of Engineering. She is a Sharp learner and love to interact with different people with different attitude and skills. She was awarded a gold medal in her ME at L.D. College of Engineering in CS & Engineering department. The event was started at 11 am. Prompted projects of this track:

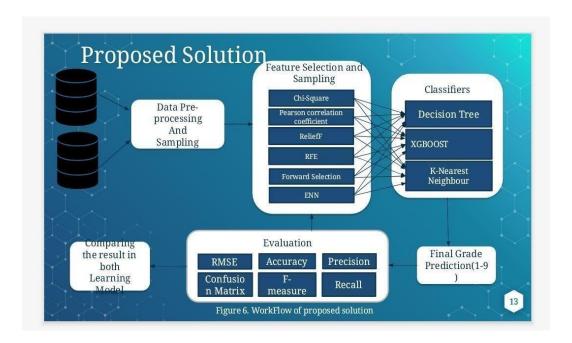
### 1) Ghelani Vaibhavi(190280723004)

Project Title: Optimizing recommender system using rich information network (Guided by Dr. Purvi N Ramanuj)



### 2) Darji Drashti (190280723002)

Project Title: Prediction of Student Performance in Diverse Learning Models (Guided byProf. Swati Patel)



### Track 2: Expert: Prof.Pinal Salot

This track had 4 participants. Jadav Niral and Punani Chetan the student coordinators of this event. The event was held by Prof. Pinal Salot. She is an Assistant Professor in the Computer Engineering Department at LD College of Engineering. The event was started at 11 am.

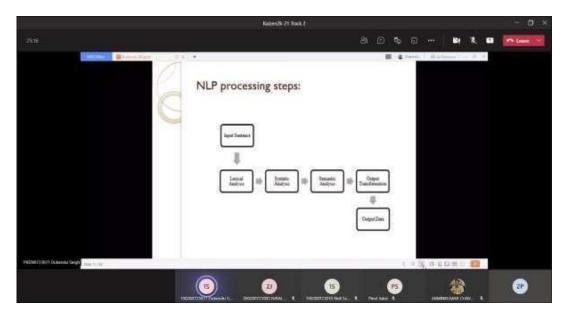
Group No	Enrollment No	Name	Guide Name	Project Title
Group-1	190280723021	Singh dubendu s.	Prof Bakul B Panchal	Sentiment Analysisfor Stock Market Prediction using Deep learning techniques
Group-2	190280723007	Lohiya mashirabanum.	Prof Vidisha B Thakkar	Novel architecture for searchable engine
Group-3	190280723010	Neil saxena	Prof Jahnavi T Patel	Approach/algorithm development for image quality of ScanSAR data
Group-4	190280723023	Vishal sakariya	Prof Ankit C.Patel	classify traffic signs for autonomus car

Prompted projects of this track:

### 1) Singh dubendu (190280723021)

# Project Title: Sentiment Analysis for Stock Market Prediction using Deep learning techniques.

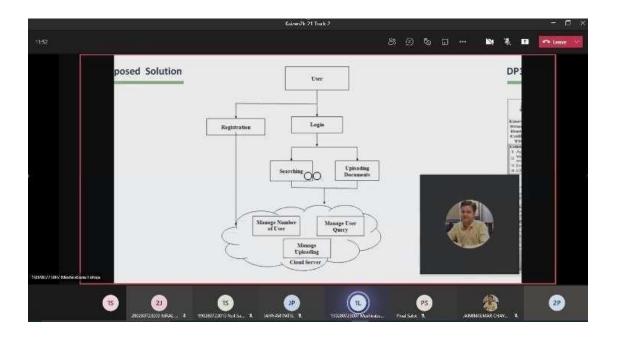
Sentiment Analysis is used to identify and extract sentiments of tweets on social media. The correlation between the sentiments and the stock prices is to be determined. The Deep learning module trains the model on the correlation to obtain a better prediction model. Stock market prediction is the act of trying to determine the future value of company stock or other financial instruments traded on a financial exchange. Prediction in the stock market is challenging and complicated for investors. The successful prediction of a stock's future price will maximize investor's gains.



### 2) Lohiya mashirabanu (190280723007)

### Project Title: Novel architecture for the searchable engine.

The worldwide web is a rapidly going and changing information source. Its growth and change rate make the task of finding relevant information harder. With the dynamic nature of WWW, for a given query the set of relevant web pages is also dynamic, which leads to the problemof scalability the assumption of accurate sufficient static image of the web is reduced with its change. Most of the search engines failed to user satisfaction for relevant, complete, and updated information. On the part of search desirable to generate the searching technique to get the improvement in the regency and coverage of search engines. In this paper architecture of a search engine is proposed which may lead the user to relevant web pages. This architecture uses ontology, semantic-based web to help users to draw relevant information through search engines.



### 3) Neil saxena (190280723010)

### Project Title: Approach/algorithm development for the image quality of ScanSAR data.

This paper presents a generalized formulation of the extended chirp scaling (ECS) approach for high precision processing of air- and spaceborne SAR data. Based on the original chirp scaling function, the ECS algorithm incorporates a SPECAN approach combined with a new azimuth scaling function, which allows effective phase-preserving processing of ScanSAR data without interpolation. The azimuth scaling can also be used for automatic azimuth coregistration of interferometric image pairs. Additionally, a novel range scaling formulation is proposed for automatic range co-registration of interferometric image pairs or improved robustness for the processing of highly squinted data. Several simulation and processing results of air- and spaceborne SAR data are presented to demonstrate the validity of the proposed algorithms.

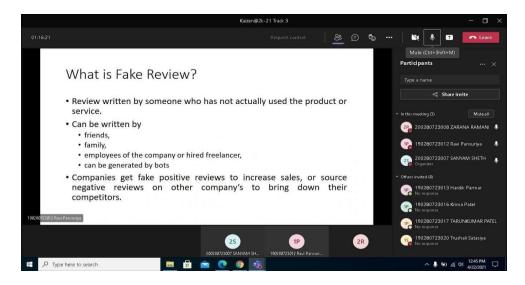


### Track 3: Expert: Prof. Amita V Shah

This track had 5 participants. Zarana Ramani and Sanyam Sheth were the student coordinators of this event. The event was judged by Prof. Amita V Shah. She is an Assistant Professor in the Computer Engineering Department at LD College of Engineering. The event was started at 11 am with by warm welcoming of an expert of the event and then students presented their work one by one.

### 1) Pansuriya Ravi (190280723012)

Project Title: Fake Review Detection (Guided under Prof. Mehul C Parikh).



### 2) Parmar Hardik(190280723013)

Project Title: Real Time Recognition of Indian Sign Language (Guided under Prof. Pradip R Patel).



### 3) Patel Krima P.(190280723016)

Project Title: Recommendation system for improving performance in the competitive exam (Guided under Prof. Hiteishi M Diwanji).



At the end of each presentation, Prof. Amita Shah had taken viva and guided them if she founded that the project needs some improvement and also appreciate the project work of students.

Lastly, Prof. Jahnavi Patel had given her a thanking speech and the event was successful.

### Winner of the event:

Approach/algorithm development for the image quality of ScanSAR data

Student Name: Neil Saxena

Guide Name: Prof. Jahnavi T Patel

# **MCA Projects:**

Date: 23/04/2021

The Information Technology department of L.D. College of Engineering Organized "Project Evaluation Kaizen 2K-21" (online mode) for MCA students on 23<sup>rd</sup> March 2021.

### Track 1:

Expert: Prof. Dharmesh Dhangar

Faculty Coordinator: Madhuri Patel

Student Coordinator : Jadhav Niral, Punani Chetan

Group No	Enrollment No	Name	Guide Name	Project Title
	185160693005	DAVE MONIL JAGDISHBHAI		
	185160693021	RATHOD RAKSHITKUMAR HITESHBHAI		PAL ON
1	185160693028	VYAS BHAVYA MAHESHBHAI	Dr. Hiteishi Diwanji	
	185160693025	SURATI NIRAJ KAMALESHBHAI		450504144755
	185160693026	THATHIYA IBRAHIM HATIMBHAI		APURVA WATER MANAGEMENT SYSTEM
2	185160693027	DHAKA VEDPRAKASH RAMNIVAS	Dr. Purvi Ramanuj	III II VIOLINEITI OTOTEM
	185160693009	GUPTA DIVYA		
	185160693019	POOJA ISHWARBHAI MISTRY		BEAT_THE_BID
3	185160693029	VYAS JANAKIBEN YOGESHBHAI	Prof. Bakul B Panchal	
	185160693003	CHAVADA CHETANKUMAR KHODABHAI		SAR MARINE
4	185160693022	SARVAIYA UMER FIROZBHAI	Prof. Jaimin Chavda	SAR WARINE
	185160693016	MISHRA ANKIT RAMASHANKAR		
5	195163693005	TANISH VORA	Prof.Manoj Patel	REWARD BASED SHOPPING
6	185160693010	JAYSWAL ANJALI MAHENDRABHAI	PROF. ANKIT PATEL	BACKORDER PREDICTION

### Track 2:

Expert: Dr. Bhavesh Borisaniya

Faculty Coordinator: Jaimin Chavda

Student Coordinator: Chintan Chaitrjee, Shivangi Gandhi

Group No	Enrollment No	Name	Guide Name	Project Title
7	195163693002	PARAM TANK	PROF.PRADIP PATEL	FASHIONAR
	185160693004	DAVE MILONI JIGAR		SOLAPUR MUNICIPAL
8	185160693007	DHRUV ISHA KETANKUMAR	Prof. Jahnvi Patel	CORPORATION
9	175160693014	TRIVEDI MRUDANG NITINBHAI	Prof. Swati Patel	ATTORNEY JOB DISCOVERY
	195163693004	PAVAN BAROT		BILLINGS & ONLINE
10	185160693008	GHEDIYA YAGNIKKUMAR MAHESHKUMAI	Prof. Mital Panchal	STREAMING SERVICE
11	195163693003	PATEL JIGISHABEN SUDESHBHAI	Prof. Alka Patel	OCCASION PLANNER
12	185160693024	SHAH SHAKSHI DHANANJAYKUMAR	Prof. NIrzari Desai	BLOGSPHERE

# Track 3:

Expert: Mr. Parth Modi

Faculty Coordinator: Nijari Desai

Student Coordinator: Sheth Sanyam, Ramani Zarana

Group No	Enrollment No	Name	Guide Name	Project Title
13	185160693011	JOSHI VISHAL HITESHKUMAR	Prof.Madhuri Patel	IG ARCHIVAL
14	185160693012	KHAMAL BHARGAV RAMBHAI	Prof Vidisha Thakkar	LIVE CHAT WITH AI
15	185160693002	BHALODI JEET MURLIDHARBHAI	Prof.Shital Solanki	THE BOX OF ART
16	185160693013	LAKKAD KINJALBEN	Dr. M.C. Parikh	ALIGNPOINT
	175163693004	PANDAR MAYURDHVAJ KANTILAL		CROP DISEASE
17	165163693004	THAKKAR KAUSHAL GUNVANTBHAI	Prof. Jaimin B Chavda	PREDICTION

### Winner:

Rank	Enrollment and Name	Guide:	Project Title.
1 <sup>st</sup>	175163693004 PANDAR MAYURDHVAJ KANTILAL 165163693004 THAKKAR KAUSHAL GUNVANTBHAI	Prof. Jaimin B Chavda	CROP DISEASE PREDICTION
2 <sup>nd</sup>	175160693014 TRIVEDI MRUDANG NITINBHAI	Prof. Swati Patel	ATTORNEY JOB DISCOVERY
3 <sup>rd</sup>	185160693010 JAYSWAL ANJALI MAHENDRABHAI	PROF. ANKIT PATEL	BACKORDER PREDICTION

# **Project Review Feedback:**

Whether Sufficient Time was allotted (Y/N)	78 Yes 01 No
Convenient to Setup (1:Hard5:Easy)	4
Interaction with Faculty&Group(1: Hard 5:	4.23
Easy)	
Technical Issue faced (Number indicates these many students faced the problem)	
Network	35
Audio-Video Setup	25
Co-Ordination with Team Members	6
Co-Ordination with Guide	3
Project Demo	12
Presentation	4
Suggestions from Evaluation Team(Faculties-Examiners)	
Realizable and Feasible in Project Timeline	10
Useful	23
Suggestion on New Features to be added	8
Effective	17
Suggestion on Improvement	5
Suggestion on Future Direction/Scope	15
List Suggestions given by Evaluation Team	Individual Team Wise (overall attached below)
	Overall Experiences were Good and
Suggestion on Review Process	Satisfactory
Overall Coordination of Program (1:Worst-	4.20
5:Best)	

### **Event Photos:**

