

DICE Virtual Innovation Competition (VIC) in UET Lahore

University of Engineering and Technology (UET), Lahore conducted DICE (Distinguished Innovation, Collaboration and Entrepreneurship) Virtual Innovation Competition (VIC) on 13th September, 2019 organized by ORIC ,Technology Incubation Centre , IET Student chapter and Electrical Engineering Department .

In DICE VIC a large number of student teams from all major departments submitted their innovations on DICE Innovation Portal. All these submitted innovations then gone through a rigorous judging process by experts from academia, to select top innovations which was displayed in DICE event. Faculty members also pitched their innovative projects in front of industry.

Ms. Uzma Almakky was the chief guest. She appreciated the innovative and creative projects done by students. Vice Chancellor Prof. Dr. Mansoor Sarwar, Chairmen of different departments, Director ORIC Prof. Dr. Muhammad Tahir, Program Manager Technology Incubation Centre Farhan Riaz, faculty members and large number of students were present at this occasion. Officials of industries also participated in the event to establish strong university-industrial linkages and to support judging process. Students selected final year projects were judged mainly on basis of degree of innovation and project readiness for commercialization.

At the end of ceremony guests from industries got souvenir from chairman Electrical Engineering Department and Vice Chancellor distributed cash prizes among winner students.

Key Performance Indicators

Sr. No.	Key Performance Indicators	Status	Comments
1	Total number of projects submitted	31	
2	Number of departments participated out of total departments.	Number of Departments Participated: 8 Total Number of Departments : 17	
3	Number of industry people attended	10	
4	Brief reports on Top ten projects Including top 3 winners and next proposed steps by the teams	See Annexure-1	
5	Number of students and number of departments within UET your DICE VIC marketing campaign touched	Number of Students: 450 Number of Departments: 14	
6	Event pictures	See Annexure-2	
7	Event video clips	See Attachments in E-mail	
8	Brief 30 sec videos of top 3 winners	See Attachments in E-mail	

ANNEXURE-1

Top Ten projects

Sr. No.	Project Title	Department	Position
1	ISIGHT: Computer Vision and Ultrasonic sensor based smart cane and glasses for visually impaired people	Electrical Engineering	1st
2	Acoustic Event Localization and its video tracking in 3D space	Electrical Engineering	2nd
3	Detachable Contemporary Jewelry	Product & Industrial Design	3rd
4	Plastic Recology (Insulating Wall Panels & Tea trolley)	Product & Industrial Design	4th
5	VR Telerobotic System	Mechatronics Engineering	5th
6	Grey Water Treatment and Reuse as green economy initiative for UET Hostel (Zubair Hall)	Environmental Engineering	6th
7	Color Learning Kit for Children	Product & Industrial Design	7th
8	Recylage De Fibril Tea Trolley	Product & Industrial Design	8th
9	IoT based Energy Monitoring system for SMIs	Electrical Engineering	9th
10	Optical Garden Light	Product & Industrial Design	10th

Top 3 Winner Projects Description & Their Next Proposed Steps

The First Runner-ups for the DICE cash prize Award were Syed Murtaza Arshad & Ayesha Khurram from Electrical Engineering Department, project title was "ISIGHT: Computer Vision and Ultrasonic sensor based smart cane and glasses for visually impaired people."

- Smart glasses provide a system for facial detection, recognition and object identification. The device is trained to identify 90 daily life objects from world famous COCO dataset. For the face recognition system, a minimum of 3 pictures of a person's face are required for training the residual neural network. Next time that person comes in front of the camera, he will be instantly recognized. Glasses, can also detect how many people are present in front of that person as well as the expressions of the person in front of him. The smart cane assists a person in navigating from one place to another, without any hindrance by detecting obstacles from front, left and right. The user can also detect depth of potholes and height of obstacles. It also supports water (puddle) detection and smoke detection. The final product will support multiple modes of operation so blind people can control these features with respect to their needs. This device is completely portable and rechargeable. It is a low-cost device which will commendably enhance the user's travelling experience as well as his/her interaction with people and objects in indoor environment, making them independent to a great extent.
- The team next step is to introduced one more feature into glasses . They are working on it to make such detector which will detect Pakistani Currency note value.
- For commercialization of project, team has contacted UET Incubation Centre to incubate their project so university resources can be used to commercialize the project.

Second award won by Usama Zubair form Electrical Engineering Department for project title "Acoustic Event Localization and its video tracking in 3D space"

- Project is further taken by Intelligent Criminology Lab, UET Lahore .Working on it to add more features i-e Inter Node communication for Camera Handover, Self-Calibration, Transmission of Video feed to a server machine, Complete PTZ operation, Reducing device size further. **Mou for this project has been signed with Punjab Safe Cities Authority, Lahore.**

3rd prize won by Hunain Quyyum from Product and Industrial Design engineering Department ,project title" Detachable Contemporary Jewelry"

- Project is detachable contemporary jewellery design which is based on modular design. Each module can be detached and converted into other form of jewellery such as one necklace contain 7 pair of module and these 7 pairs detached and converted into earrings and pendants and different type of Necklaces with endless composition and with changeable stones, pearls ability.

- She has created Face book page named as Khnazai Jewellers to get online orders. She is also showcasing her jewellery in different exhibitions such as handicraft exhibitions and marketing her project with proper model photography, brochures and catalogues.

ANNEXURE-2





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