



Report on Kaizen – 2022

(Instrumentation and Control Engineering)

L D College of Engineering, Ahmedabad

(22nd April 2022)



Event Description

The event KIAZEN – 2K22 was celebrated by Instrumentation & Control Engineering Department of the institute with great enthusiasm and support by all faculty members and students. The event was inaugurated with Prayer and formal welcome and introduction of the juries, Head Dr. M.T. Thakker, Prof. V. P. Patel and Prof. H. K. Shastri by Kaizen Student co-ordinators Team. Motivational speech was given by Head Dr. M. T. Thakker and Placement Head Prof. V. P. Patel. Brief introduction of overall event and project was given by Prof. H. K. Shastri.

Total 32 projects and presentation made by student's team base on their industrial internship were on display. The venue was full of students and staff for one day. The students were very happy to show case their work to juries. The environment had been very vibrant on that day.

Dr. Suryakant B Gupta, Institute for Plasma Research, Gandhinagar, Mr. Hitesh Jain, Sr. Engineer – Project, Iris Automation and Prof. Mihir Vasavada, Asst Professor, Electrical Engg. Department were call as juries for event. All three have taken keen interest in observing each and every project students. The juries were delighted to see the overwhelming response of the students. All juries congratulate the students and wish them for their bright future.

Whole Event is divided in three parallel track of student group. In which first track is of PLC based project which was judge by Dr. Suryakant Gupta along with department faculty Prof. V. P. Patel and Prof. M.C. Patel. Second track is of miscellaneous project and that was judge by Mr. Hitesh Jain along with department faculty Dr. T. V. Shah and Prof. V.V. Patel. And third track is of internship presentation that was judge by Prof. Mihir Vasavda along with Department faculty Dr. D. H. Makwana and Dr. A. K. Shah.

Event was followed by farewell party of final year students given by pre-final year students. Student team of pre-final year student were kept some games for final year students and faculties of department. Final year students shared their 4 years graduation journey experience. Event was end by taking “GARABA”. All enjoyed a lot and it was a great management of overall event by faculty co-ordinator and pre final year students' team.

Sr no		Enroll No	Student Name	Industry name	Title / domain	Ex. guide	Int. Guide
1	1	180280117021	JOSHI MAYURKUMAR ASHOKBHAI	Einfochips - an Arrow company	Smart Asset Tracking using STM 32	Mr Rahul shah	CVS
	2	180280117002	Bhatt Kashyap JayantBhai				

2	1	180280117008	CHAVDA TAPAN	DIVYA BHASKAR (DB CORP LTD)	Automated Photovoltaic Cell array cleaner	Iqbal Momin	LSP
	2	180280117014	DUBEY NAVNEET				
	3	180280117040	PATEL TEJ				
3	1	190283117015	YADAV VISHAL	Masibus Automation and Instrumentation Pvt. Ltd	DAQ system using soft PLC for level control	Mr Nirlay Patel	CVS
	2	190283117008	PANCHAL DARSHAN				
4	1	180280117028	MAHIDA TEJASH	SunRobotics Technologies	Industry 4.0 Enabled 32 CHANNEL PWM SERVO CONTROLLER	Hardik Govani	DHM
	2	180280117053	TAMBE HARSH				
	3	180280117018	GHODADARA HARSH				
	4	180280117031	MISTRY MIRAL J.				
5	1	180280117013	Doshi Utsav Vijaybhai	Amul Industries Pvt. Ltd.	Industrial Measurement and quality control with inspection + industrial project management	Vimal Makhecha	CVS
6	1	180280117029	Makwana Rohit	Amees Power	IoT based Water quality monitoring using arduino and NodeMCU	Mr.J.B.Gajjar	TVS
	2	180280117027	Lakum Hitesh				
	3	180280117045	Rathod Rajvirsinh				
7	1	180280117058	Vasoya Bhavik	ShaktiKrupa Automation	dedicated embedded solution for tensile testing equipment with compliance of Android app	Mr. Jayesh Parmar	AKS
	2	180280117055	Neel thakkar				
	3	180280117030	Darshil Mistry				
	4	180280117033	Mokhiya yash				
8	1	180280117043	Aniket prajapati	Semitronik	Accessing Non Linear analog sensor using Interpolation	Khushal Patel	VPP
	2	180280117010	Nilay dave				
	3	180280117047	Shivam sadadiya				
	4	180280117006	Kuldip Chauhan				
9	1	180280117020	Himanshu Joshi	Nippon Electric	Arduino project ?	RAJAN SIR	NAK
	2	180280117005	Meet Chaudhary				
	3	180280117003	Khyati Bhatt				
10	1	180280117049	Savliya Fenil	SunRobotics Technologies	Arduino based PLC	Hardik Govani	MCP
	2	180280117039	Patel Raj				
	3	180280117052	Tala Apurv				

11	1	180280117050	SHINGALA RUCHIT	Mascot Electrotek	Temp Control Using PLC	Vatsal dudhat	VPP
	2	180280117048	SANGANI HARSH				
	3	180280117042	POKIYA NILKANTH				
	4	180280117060	VYAS DEEP				
12	1	180280117037	Dhruv Patel	Prima	Industrial automation	Abhina aashra	MCP
	2	180280117036	Darshan Patel				
13	1	180280117034	UTSAV PANCHAL	Semitronik	Stepper motor control Using PLC	Khushal Patel	VPP
	2	180280117038	KEYUR PATEL				
	3	180280117051	PANKAJ SOLANKI				
	4	180280117044	UJJAVAL PRAJAPATI				
14	1	180280117023	Khalasi Avinash	NIS / PEB Infra	EOT Crane Safety System using Arduino	Nishant Upadhyay	HKS
	2	180280117062	Prasun Chakraborty				
	3	180280117057	VAMJA HARDIK				
	4	180280117001	Ahir Parth J.				
15	1	190283117010	Prajapati Archita s.	Automation engineers	Vulcaniser Rubber plant control/automation System.	1)Dharmendra sinh . 2)darshit Bhatt	HKS
16	1	180280117025	Korat Birjeshkumar harashukhbhai	axis India	air quality monitoring using PLC	harshad sir	UGS
	2	180280117026	Kotadiya Ronak Bharatbhai				
	3	180280117054	Thakar Rutvij Anandbhai				
17	1	180280117022	kavar jaydeepkumar dineshbhai	Axis	Gas & Liquid analysers	harshad sir	UGS
	2	180280117019	hinsu yashkumar prabhubhai				
	3	180280117016	Gadara Jemmy Shantilal				
18	1	180280117046	Bhavik Girishbhai Ronvelia	ISRO	Optical and Mechanical Payloads	yeshpal Yadav	AKS
19	1	180280147017	Ghodadara divyesh Madhubhai	Amee Power	SEWAGE FLOW MONITORING	Mr.J.B.Gajjar	TVS

	2	180280117007	Chavda Pratik Jayeshbhai		SYSTEM USING ESP 8266		
	3	180280117024	Jayesh Babubhai Kher				
	4	160280117040	Patel Manisha Natvarbhai				
20	1	180280117035	Viraj Thakorbhai Parmar	O.N.G.C.	Instrumentation in drilling services	Mr. Debojit Saikia	NAK
21	1	190283117011	Prajapati Sahil D.	harikrupa	Remote Monitoring System of Solar Rooftop	Abhijeet Shrivias	DVR
22	1	180280117004	Bhatt Kirtan	Electrical/Industrial measurement	underground cable fault detector	nil	NAK
	2	180280117009	Dave Jatush				
	3	180280117011	Dave Parth Hitesh Kumar				
	4	180280117061	Pinakpani Saha				
23	1	190283117002	Desai Milan B.	construction automation	Bricks making machine	Prof. Urvish p. Soni	MTT
24	1	190283117009	Panchal Dhruv A.	Healthcare	Multi-Wave Healer	Prof. Urvish p. Soni	MTT
25	1	180280117059	Bansikumar visavaliya	Ambuja intermediates pvt. Ltd. Chhatral-Gujarat	IoT based Electric Energy meter	Mr. Rohit Patel	DVR
26	1	170280117035	Patel Hiren A.	Sofcon	Plc based water distribution system	Rahul sher	KRJ
	2	180283117010	Brijesh Parmar V				
	3	160280117047	rathod Sagar h.				
27				ZERA India Pvt Ltd	Low energy Bluetooth module	Abhijit Kumar	DVR
	1	180280117032	Modi Dhruvkunar Narendrakumar				

28	1	190283117004	JOSHI AMIDHARA HARSHEH	SUMUL Dairy	Process Automation for yarn hole detection	Yakin Patel	VVP
29	1	190283117001	CONTRACTOR VISHALKUMAR VIJAYBHAI	Shrey System	Industrial Automation	Vinay Patel	VVP
30	1	190283117012	Ronitbhai Narsinhbhai Rathwa	HP automation	cold storage automation	Harsh G. Gajjar	HKS
	2	190283117006	Kanzariya Jayesh Rambhai				
31	1	190283117013	Mayur.k.tandel	AMTECH ELECTRONICS (INDIA). LTD	automation irrigation system for pulp and paper Industry using VFD	Dhananjay Mehta	LSP
32	1	190283117003	Gamit Dhanrajsinh N	Amul Fed Dairy	Process Automation	Mr.Nehit Vasavada	VVP

Review was done parallels in 3 tracks as below

Track -1 PLC based projects

Location	Project Lab / Measurement Lab
Review committee	External Expert /Prof. V.P.Patel / Prof. M. C. Patel
Team no and sequence	3/7/8/11/13/14/16/22/26/28/30/32

Track -2 Controller and other projects

Location	Microprocessor Lab/ Analog Lab
Review committee	External Expert / Dr. T. V. Shah / Prof. V. V. Patel
Team no and sequence	2/4/5/6/9/10/15/19/25/27/31

Track -3 Soft projects / Internship

Location	Tagor Semiar Hall
Review committee	External Expert /Dr. D. H . Makwana / Dr. A. K. Shah
Team no and sequence	1/12/17/18/20/21/23/24/29

Winners of KAIZEN 2k22

RANK	Name of Students	Enrollment no	Project/Internship Title	Name of Faculty mentor	Remarks of experts
1	CHAVDA TAPAN	180280117008	Automated Photovoltaic Cell array cleaner	Prof. L. S. Patel	Good Efforts in hardware, real time problem
	DUBEY NAVNEET	180280117014		Mr. Iqbal Momin (BD Corpo)	
	PATEL TEJ	180280117040			
2	Korat Birjeshkumar harashukhbhai	180280117025	Air quality monitoring using PLC	Prof. U. G. Suhagiya	Societal impact and low cost solution
	Kotadiya Ronak Bharatbhai	180280117026		Mr. Harshad (Axis India)	
	Thakar Rutvij Anandbhai	180280117054			
3	Panchal Dhruv A.	190283117009	Multi-Wave Healer	Dr. M. T. Thakker	Multidiscipline & collaborative project
				Prof. Urvish Soni (GP- Abd)	

Projects below are close to the winning line and students performed very well and made good impression on experts

- Optical and Mechanical Payloads
- Smart Asset Tracking using STM 32
- Remote Monitoring System of Solar Rooftop
- Bricks making machine
- Accessing Non Linear analog sensor using Interpolation
- Stepper motor control Using PLC
- EOT Crane Safety System using Arduino
- underground cable fault detector
- Industry 4.0 Enabled 32 CHANNEL PWM SERVO CONTROLLER
- Industrial Measurement and quality control with inspection + industrial project management
- SEWAGE FLOW MONITORING SYSTEM USING ESP 8266

Picture Gallery



Welcome of judges



Inauguration speech by Dr. M.T Thakker- Head I & C Department, Prof. V. P. Patel Placement coordinator and Prof . H .K. Shastri Kaizen 2022 Event coordinator



Project review is being done by experts

એલ.ડી.કોલેજ ઓફ એન્જિનિયરિંગમાં 'કાઈઝેન 2022'નું આયોજન હવે સોલાર પેનલની સાફ સફાઈમાંથી મુક્તિ : વાઈપર જાતે જ સફાઈ કરશે

એ લ.ડી.કોલેજ ઓફ એન્જિનિયરિંગમાં

'કાઈઝેન 2022'નું આયોજન કરવામાં આવ્યું હતું. કાઈઝેનમાં દરેક ડિપાર્ટમેન્ટના છેલ્લાં વર્ષના સ્ટુડન્ટ્સ પોતાના સ્ટડીના ભાગરૂપે વિવિધ સમસ્યાઓના સમાધાનરૂપે પ્રોજેક્ટ તૈયાર કરવામાં આવ્યા હતા. કાઈઝેનમાં ઈન્સ્ટ્રુમેન્ટેશન એન્ડ કંટ્રોલ ડિપાર્ટમેન્ટના સ્ટુડન્ટ્સ નવનીત દુબે, તપન ચાવડા અને તેજસ પટેલે પ્રો.લલિત પટેલના માર્ગદર્શન હેઠળ દ્વારા 'ઓટોમેટેડ ફોટોવોલ્ટીક સેલ એરે ક્લિનર' વિષય પર પ્રોજેક્ટ તૈયાર કર્યો છે. આ વિશે પ્રોજેક્ટ ટીમના સ્ટુડન્ટ્સ નવનીત દુબેએ વાત કરતાં કહ્યું કે, સૌર ઊર્જા પુનઃપ્રાપ્ય ઊર્જા સ્ત્રોતમાંથી એક છે. વિદ્યુત ઊર્જાની સામે સૌર ઊર્જાનો પણ વપરાશ વધી રહ્યો છે. સૂર્યમાંથી સતત મહત્તમ ઊર્જા સ્તર મેળવવાથી સ્થાપના ખર્ચમાં ઘટાડો થઈ શકે છે. શહેરમાં અને ઔદ્યોગિક એકમમાં પણ સોલાર સિસ્ટમ લગાવવામાં



આ પ્રકારની સામગ્રીનો ઉપયોગ કરાયો છે

ગરમી વધી રહી છે સાથે વિદ્યુત ઊર્જાની સાથે સોલાર પેનલથી મળતી ઊર્જાનો વપરાશ થઈ રહ્યો છે. આધુનિક સમયમાં આ પ્રકારની ઊર્જાનો ઉપયોગ કરવાથી ગ્રીન એનર્જીને વધુ મહત્વ મળી રહે છે. આ પ્રોજેક્ટ માટે માર્કો કંટ્રોલર, મોટર ડ્રાઈવર, આઈઆર સેન્ટર્સ, વિવિધ આઈસી, આરડીઓ, ૧૨ વોલ્ટની બેટરીની મદદથી આ ક્લિનર તૈયાર કરવામાં આવ્યું છે.

આવી રહી છે. આ સિસ્ટમની જાળવણી કરવી જરૂરી પણ તેની અનિયમિત સફાઈને લીધે ધૂળ, વરસાદ અને કચરો ચોટી જાય છે અને તેને લીધે પેનલની સફાઈ કરે તો તેમાં સ્કેચ પડી જવાથી સૌરઊર્જાની એફિસિયન્સી ઓછી થતી જાય છે અને તેને લીધે તે ઝડપથી ખરાબ જાય છે. એક વર્ષ સુધી પેનલને સાફ ન કરીએ તો સોલાર પેનલની ૨૦ ટકા કાર્યક્ષમતા ઘટી જાય છે. સોલાર પેનલની કાર્યક્ષમતા જળવાઈ રહે તેને ધ્યાનમાં લઈને 'ઓટોમેટેડ ફોટોવોલ્ટીક સેલ એરે ક્લિનર' તૈયાર



કર્યું છે. આ પ્રોજેક્ટ પીવીસી એરે ક્લિનર (ઓટોમેટેડ સોલાર પેનલ ક્લીનર) એવી રીતે વિકસાવવામાં આવ્યું છે કે તે સોલાર પેનલને અસરકારક રીતે સાફ કરે છે. આ રોબોટ ડ્યુઅલ મોટર સંચાલિત છે જે હોરિઝન્ટલ મૂવિંગ મિકેનિઝમ ધરાવે છે અને બ્રશ સાથે સમાંતર સફાઈ કરે છે. ક્લિનર કાર્યક્ષેત્ર પર રાખવા માટે આઈઆર સેન્સર સાથે લોડ થયેલા છે.

Students project covered by media Gujarat Samachar dated 24/04/2022

