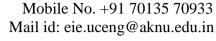
ADIKAVI NANNAYA UNIVERSITY: RAJAMAHENDHRAVARAM

University College of Engineering

Department of Electronics & Instrumentation Engineering

Mr. J. Hanumanthu, Course Coordinator Dept. of EIE



(Figure regit pro)

Report of one-day National Webinar on "Opportunities & Challenges in Instrumentation & Control Engineering" on 03-08-2021, at 10:30 AM in AY:2020-21

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1. Introduction

The Department of EIE, University College of Engineering has organized a one-day national webinar on "Opportunities & Challenges in Instrumentation and Control Engineering". The main theme of this one-day webinar is to enlighten and creating the awareness among the students about various challenges in the field of process control and automation area. The process control area plays a significant role in various industries such as Oil, Gas, Fertilizers, Pharmaceutical, Steel and many plants.

In process-industries, many process variables such as temperature, pressure, flow, level, density, humidity come across to measure and control continuously for maximum yield of the product. The real challenge exists when the process involves MIMO (Multi Input and Multi Input and Multi Output) due to the presence of interaction among process variables and disturbance; it is difficult to design the suitable controller for efficient control of process variables. Moreover, the addition of disturbance variables, noise makes the process more complex. The existing methods or technology does not efficiently provide the feasible solution to face these challenges.

With advancement of the emerging areas such as Machine Learning, Artificial Intelligence, these methods can be extended to solve the challenges associated with the conventional methods in the terms of efficiency, large data, constraints, noise and computation efficiency.

The talk was mainly focused on application of these emerging tools to solve real time problems in the process control plants and application of modern automation tools effectively. The talk addressed by taking bench mark examples in the existing literatures with algorithms and optimization tools in the process control area.

The webinar also provided a great insight into the challenges those who would like to take up their career in this field and emphasized the opportunities in the field of instrumentation and control engineering.

2. Brochure



ADIKAVI NANNAYA UNIVERSITY

University College of Engineering

RAJAMAHENDRAVARAM [APPROVED BY AICTE]

DEPARTMENT OF ELECTRONICS & INSTRUMENTATION ENGINEERING

National Webinar

Opportunities & Challenges in Instrumentation & Control Engineering

3 AUGUST, 2021 10:30 AM - 12:30 PM



CHIEF GUEST

PROF M JAGANNADHA RAO Vice Chancellor Adikavi Nannaya University

versity

PATRON

Prof T Ashok

Registrar

Adikavi Nannaya University





GUEST OF HONOR **Dr V Persis**Principal

University College of Engineering, AKNU

RESOURCE PERSON

Mr Kinnera Kiran

M.Tech, (PhD)

Fellow IETE, Senior Member,

Senior Technical Officer -2,

Process Engineering & Technology Transfer Division,

CSIR-IICT, Hyderabad



For Details 9949723988, 7416131863 eie.uceng@aknu.edu.in

Click Here to Register

ZOOM Join us Online

Convener

Mr J Hanumanthu

Asst Professor, Dept. of EIE

Co Conveners

Dr D Srinivasa Rao, Asst Professor, Dept. of EIE
Dr D Kishore, Asst Professor, Dept. of EIE

3. List of registrants

List of the Registered participants is provided by the following link.

 $https://docs.google.com/spreadsheets/d/1UKO9hkhcHUFIu0aFcNQiB_Vsciq1I8uU3IXg8Xg4lt\\ A/edit\#gid=0$

4. Webinar schedule/link

WEBMASTER AKNU is inviting you to a scheduled Zoom meeting.

Topic: National Webinar on Opportunities & Challenges in the field of Instrumentation &

Control Engineering, Time: Aug 3, 2021 10:30 AM India

Join Zoom Meeting

https://us06web.zoom.us/j/9032683444?pwd=RzhaZDN6ZDAzUUJlaENuU3ZWSjFtZz09

Meeting ID: 903 268 3444

Passcode: 03082021

YouTube Link for Webinar:

https://www.youtube.com/watch?v=JBVDGw0BH9g

5. Welcome Address & Opening Remarks

The convener& course coordinator of the department of EIE Mr. J. Hanumanthu has commenced the webinar at 10.30AM by welcoming Honorable Vice Chancellor Prof. Mokka Jagannadha Rao, University College of Engineering, Principal Dr. V. Persis, Resource person Mr. K. Kiran Technical -2 CSIR-IICT, Hyderabad. The convener invited all the participants of this program i.e., students of various departments from University College of Engineering, Faculty and from Industry. He emphasized the significance of webinar and brief introduction about scenario of process control. The convener acknowledged the support and encouragement provided by Honorable Vice Chancellor Prof. Mokka Jagannadha Rao & Principal Dr. V. Perisis for her continuous encouragement.



Finally, he instructed all the participants about how the webinar will progress and for smooth conducting of the webinar and welcomed all again.

6. Inaugural Address - Chief Guest

Honorable Vice Chancellor Prof. Mokka Jagannadha Rao, in his inaugural speech welcomed all the participants and resource person of the one-day webinar. He has briefed about the importance of the webinar and the various activities that are initiated by the AKNU and also expressed his delight over the conduction of this program for individual as well as institutional development and also encouraged the organizing committee to come up with many more proposals of this kind in the future. He has shared his experience in this field and motivated with his knowledge and dynamic skills.

The Honorable VC has addressed the gathering to use opportunities and address the challenges in the field of Instrumentation and Control Engineering effectively and to maintain the long term interaction with resource person.

The Honorable VC has concluded his message to the students to take-up internships and projects in the chosen field and explore further for their betterment.

7. Key note Address-Guest of Honor

Respected Principal, Dr. V. Persis University College of Engineering started her speech by welcoming all the participants, resource person Mr. K. Kiran, Senior Technical Officer- 2, IICT-Hyderabad and conveyed her regards to Honorable Vice Chancellor Prof. M. Jagannadha Rao.

At the outset respected Principal has congratulated the Convener and the Department of EIE to come with this idea of conducting the One-Day webinar. Respected principal has clarified the apprehensions about the EIE branch and motivated the students to explore further challenges in the field of Instrumentation and Control Engineering.



Respected Principal concluded her discourse to the students to utilize the One-Day National Webinar for current trends in the area of Instrumentation & Control Engineering aspects.

8. Technical Session

Dr. D. Kishore, Assistant Professor (Ad-hoc), Department of EIE briefed the profile of Mr. K. Kiran to the dignitaries, faculty and the students and is as follows.

Mr K. Kiran is a **Fellow** of IETE (The Institution of Electronics & Telecommunication Engineers, India). Mr. K. Kiran is an IEEE (*The* Institute of Electrical and Electronics Engineers) Senior **Member**, USA. Mr Kiran is a Senior Member of International Society of Automation. A Life Member of IUPRAI (*Indian Unit of Pattern Recognition and Artificial Intelligence*), The Institution of Engineers (India) [IEI] and Instrument Society of India (ISOI).

Mr. Kinnera Kiran pursuing his Ph. D in Engineering Sciences (Applied Artificial Intelligence) from ACSIR, he has a M.E. (Master of Engineering) in Systems & Signal Processing (Electronics & Communication Engineering) from University College of Engineering, Osmania University Hyderabad. B. Tech in Electronics & Instrumentation Engineering from Kakatiya Institute of Technology & Science, Kakatiya University, Warangal.

Mr. K. Kiran has made contributions in the area of Artificial Intelligence & Automation. He has published research papers in the area of Artificial Intelligence & Bioinformatics in International journals.

After the formal introduction of resource person, he took over the session by greeting Vice Chancellor Prof. M. Jagannadha Rao, respected Principal Dr. V. Persis, Convener of the program Mr. J. Hanumanthu &participants from all various fields.

Mr. K. Kiran has started his session with the fundamental concepts of the process control, presented on the role of process control in the process-industries and significance of the process control. The session was presented with real time example of the process control applications in the chemical plants. SISO (Single Input and Single Output) & MIMO (Multi Input and Multi Output). The presented the role of optimization for efficient implementation of control algorithms and application of advanced concepts such as machine learning, artificial intelligence.

Further, the speaker pointed the new directions to take-up for the better implementation of process control systems in the real plant. He motivated the students with some illustrative examples and student participants also showed much enthusiasm in interacting with the speaker.

The talk ended with some Q& A session both student participants and faculty. He shared his possible future assignments and contact details for further interactions.

9. Concluding Remarks

The One-Day National Webinar on Opportunities and Challenges in Instrumentation and Control Engineering was concluded with the following remarks.

- 1. The fundamental concepts on the process control were introduced.
- 2. The real-time application of the process control in the various chemical plants was discussed.
- 3. Optimization, constraints, noise, computational aspects were dealt with detailed example.
- 4. Application of the advanced modern tools to deal the challenges in process control application was discussed such as Artificial Intelligence, Machine Learning aspects.
- 5. Case studies of some practical process control were illustrated.
- 6.The program was concluded by question & answer session with the resource person

10. Vote of thanks

Vote of thanks was proposed by Dr. D. Srinivasarao, Assistant Professor, Department of EIE, University College of Engineering, AKNU. He started with thanking the Honorable Vice Chancellor Prof. M. Jagannadha Rao for providing all the necessary approvals for the smooth conduct of the program.

A special vote of thank was conveyed to the respected Principal Dr. V. Persis for her continuous support and suggestions from time to time for successful completion of the program.

Profound thanks to the Course Coordinator& Convener of the One-Day National Webinar for his restless efforts to bring this a fruitful discussion.

A special gratitude and immense thanks to the resource person Mr. K. Kiran, Senior Technical Officer-2 was conveyed for spending his valuable time in spite of his busy schedule for the talk on One-Day National Webinar on "Opportunities & Challenges in Instrumentation & Control Engineering".



A special vote of thanks to the Course Coordinators of other departments, Non-teaching staff, administrative staff, press media and their services were acknowledged.

Last but not the least, the active and enthusiastic student participants were highly appreciated.

11. Outcome

The main outcome of this program is to create awareness among the students and faculty about the challenges and opportunities in the field of Instrumentation and Control Engineering. The one-day webinar has provided a great opportunity for all the participants to interact with the eminent resource person and thereby got clarifications regarding the opportunities, challenges, latest developments and new software's related to Instrumentation and Control research area. The main outcome attributed out of this program is to have MOU'S and internships to the students in due course of action.

12. Feedback

4 A	В	C D	Е	F	G	Н		J	К
Name of the Participa	Type of the participan	Name of the Institution	How would you rate th	How informative did y	How did the session co	The new thing that you	Recommendations / S	uggestions for future imp	provements
Joseph Pramodh Rebi	Student	Aditya Engineering College	Excellent	Extremely informative	Excellent	The need of instrumen	The time of webinaris	stoo short to have more i	nteraction
Prof.Dr.I.Manavalan	HSE Consultant Adviso	M/s Eduwell Academy Option 1	Excellent	Extremely informative	Excellent	Participation for Progre	Participation for Progr	ess !Excellent Presentati	on are Made in this One [
JALLURI RAMYA CHA	Student	Adikavi Nannaya University	Excellent	Extremely informative	Excellent	Yes	Nothing		
SINGILIDEVI.LAKSHN	Student	ADIKAVI NANNAYA UNIVERSITY RAJAHMA	NVery Good	Extremely informative	Very good	yes	on, health		
ALIKANI VIJAYA DUR	Faculty	ADIKAVI NANNAYA UNIVERSITY	Very Good	Very Informative	Very good	Challenges	nil		
Badugu Vinoothna	Student	College of engineering	Very Good	Very Informative	Very good	opportunities in field o	Nothing		
Mr. KRISHNA BANAV	Faculty	University College Engineering	Very Good	Very Informative	Very good	Control processing	Good luck		
Dangeti Pavan sai	Student	Adikavi Nannaya University	Excellent	Extremely informative	Excellent	Yes ,About the control	Conduct more webina	rs about instrumentation	engineering by Industry e
Gurani Asha Devi	Student	Adikavi Nannaya University	Very Good	Very Informative	Very good	Knowing the important	No suggestions		
laxmi sai Priyanka	Student		Excellent	Extremely informative	Excellent	Yes	yes		
Pranay	Student	Adikavi nannaya university	Very Good	Very Informative	Good	Yes	To improve more opp	ortunity in instrumentatio	n
Prof.Dr.I.Manavalan	HSE Consultant Adviso	M/s Eduwell Academy Option 1	Excellent	Extremely informative	Excellent	Participation for Progre	Participation for Progr	ess !Excellent Presentati	on are Made in this One I
S V LAKSHMI DURGA	Student	ADIKAVI NANNAYA UNIVERSITY	Very Good	Very Informative	Very good	Wide range of opportu	Live meetings are eve	n more interesting, with r	o disturbances because s
SABBARAPU GANES	Student	ADI KAVI NANNAYA U Option 1	Excellent	Extremely informative	Excellent	About opportunities in	It's good		
Peruri Vasavi Sri Sai V	Student	Adikavi Nannaya University	Excellent	Extremely informative	Excellent	opportunities and chal	no suggestions		
SIVAKOTI BHAVESH	Student	ADIKAVI NANNAYA UNIVERSITY	Very Good	Very Informative	Very good	JOB oppurtunities	NOTHING		
PULIDINDI VENKATA	Faculty	University college of E Option 1	Very Good	Extremely informative	Very good	Control processing in it	It is well Organized we	ebinar and conduct more	webinar in future,
Pallepogu Naveen	Student	Adhikavi Nannaya uni\Option 1	Excellent	Extremely informative	Excellent	Nathing ,thank you	Nathing thank you		
Poranki Vasu Ramach	Student	Adikavi Nannaya UniveOption 1	Very Good	Very Informative	Very good	Opportunities of instru	Al		
GURUGUBELLI VINA	Student	ADIKAVI NANNAYA Ul Option 1	Good	Extremely informative	Very good	How can we get succes	More members to be p	participate	
Mani venkat rapaka		Adikavi nannaya University	Very Good	Very Informative	Excellent	Ai	Conduct frequent web	inars on importance of ir	trumentation in industrie
BULA SEKHAR	Principal svpc Tuni	Sri Vidya polytechnic (Option 1	Excellent	Extremely informative	Excellent	Al /MR and process co	wonderful session by o	onducting more seminar	's we can get eveamess i
Sriya Sarvani Vasams	Student	Adikavi Nannaya UniveOption 1	Excellent	Very Informative	Very good	Instrumentation develo	No suggestions		
N Sri Mahesh	Student	University college of engineering-AKNU	Very Good	Very Informative	Very good	I've learned alot of info	I don't have		
BORRA SUDHAKIRAN	Faculty	ADIKAVI NANNAYA UNIVERSITY	Very Good	Extremely informative	Excellent	Challenges in Instrume	Not Necessary		
B. DIVYA	Managing Director	Universe Institute visak Option 1	Excellent	Extremely informative	Excellent	Artificial intelligence	Wonderful national we	ebiner session very useful	for students and staff reg
Yarram Swetha		Holy Mary institute of technology and science	Excellent	Extremely informative	Very good	Understood the opport	Want some more relev	ant information regardin	g instrumentation field
CH. RAGA RUCHITHA	Student	ADIKAVI NANNAYA Ul Option 1	Excellent	Extremely informative	Excellent	I learned something ne	It's very useful session	please conduct more to	learn about instrumentati
,		Aditya Degree College for women Kakinada	Very Good	Extremely informative	Excellent	Artificial intelligence	Continue this type of s	sessions frequently	
setti jagadeswari	Student	adikavi nannayya university	Excellent	Very Informative	Excellent	more information abou	sessions on technical I	anguages	
/ / \ \						1 4 (

4	A	В	С	D	Е	F	G	Н		J	К
1	lame of the Participar	Type of the participant	Name of the Institutio	n	How would you rate the	How informative did yo	How did the session co	The new thing that you	Recommendations / St	uggestions for future impro	ovements
30 E	hoomika yellamelli	Student	Aditya Degree Colleg	e for women Kakinada	Very Good	Extremely informative	Excellent	Artificial intelligence	Continue this type of s	essions frequently	
31 9	etti jagadeswari	Student	adikavi nannayya univ	versity	Excellent	Very Informative	Excellent	more information abou	sessions on technical la	anguages	
32 F	othala Purna Chandr	Student	Adikavi Nannaya Univ	eOption 1	Good	Very Informative	Good	Learn something from	No		
3 (hilukuri lohith	Student	Adikavi nannaya univ	eOption 1	Excellent	Extremely informative	Excellent	Lots of things I earn	Improve the explanation	ns	
4 F	Preethi Susmitha	Student	University college of a	engineering	Very Good	Very Informative	Very good	Acquired knowledge	No suggestions		
5 F	asala Nuthan vara Ki:	Student	University college of a	Option 1	Very Good	Very Informative	Very good	Good	None		
6	METTA.DURGAPREM	Student	UNIVERSITY COLLEC	GE OF ENGINEERING,A	Good	Very Informative	Very good	OPPORTUNITIES	N		
7 9	V LAKSHMI DURGA	Student	adikavi nannaya l	INIVERSITY	Very Good	Very Informative	Very good	Scope of Instrumentati	No		
8 F	.Srivalli	Student	Adi Kavi Nannaya uni	iversity	Very Good	Very Informative	Very good	About controllers and p	Let's have a weekly se	ssion on latest technologi	es
9 N	fatcha prasanth kuma	Student	University College of	e Option 1	Very Good	Very Informative	Very good	Opportunities	More information		
0 (EMULA SATYA KOM	Student	adikavi nannaya l	NIVERSITY	Excellent	Very Informative	Very good	Leam lot of opportunit	No		
1 \	iswateja vathadi	Student	Adikavi nannaya univ	eOption 1	Very Good	Very Informative	Very good	Lot	No		
2 4	ARELLA RAMA SIVA	Student	aadikavy nannay <i>i</i>	Option 1	Excellent	Extremely informative	Excellent	CHALLENGES IN THE	Yes it is very use full		
3 Y	M NDS Srinivas	Student	Aknu	Option 1	Very Good	Very Informative	Very good	About the topic and so	Nothing		
4 E	adugu Vinoothna	Student	College of engineering	9	Very Good	Very Informative	Very good	Opportunities in the fie	Nothing		
5 N	ledisetti kavya sree	Student	Adikavi nannaya Univ	ersity	Good	Very Informative	Good	Even through core the	Nothing		
6 9	andeep Bhargav	Student	Adikavi Nannaya Univ	versity	Excellent	Extremely informative	Excellent	Yes	U		
7	NOTAMARRI VINAY	Student	Adikavi Nannaya Univ	versity College of Engine	Excellent	Extremely informative	Excellent	About the Industry nee	No Suggestions		
8 N	1. Bavana Harshitha	Student	Adikavi Nannaya Univ	eOption 1	Very Good	Very Informative	Very good	The utilises of instrume	None		
9 1	fallela Ashok muralid	Student	Adikavi nannaya univ	eOption 1	Excellent	Extremely informative	Excellent	More information	More information		
) (1anikanta	Student	Adikavi Nannaya Univ	eOption 1	Very Good	Very Informative	Very good	Gained knowledge abo	Nothing		
1											

13. Press Report on Webinar

ఇంజినీలింగ్లో అవకాశాలు అంబపుచ్చుకోవాలి

రాజానగరం: ఇన్కుమైంటేషన్ అండ్ కం ట్రోల్ ఇంజినీరింగ్లో సవాళ్లను సమర్ధంగా ఎదుర్కొంటూ అవకాశాలను అందిపుచ్చుకో వాలని ఫెలో ఇనిస్టిట్యూట్ ఆఫ్ ఎల్క్రైనిక్స్ అండ్ టెలి కమ్యూనికేషన్ ఇంజినీర్స్ సీనియర్ మెంబర్ కిన్నెర్ కిరణ్ అన్నారు. నన్నయ యూనివర్సిటీ కాలేజ్ ఆఫ్ ఇంజినీరింగ్, డిపా ర్వమెంట్ ఆఫ్ ఎల్మక్టానిక్స్ అండ్ ఇన్కుస్తుమెం టేషన్ ఇంజినీరింగ్ ఆధ్వర్యంలో మంగళవారం నేషనల్ వెబినార్ నిర్వహించారు. 'ఇన్కుస్తు మెంటేషన్ అండ్ కంటోల్ ఇంజిసీరింగ్లో సవాళ్ళు, అవకాశాలు' అనే అంశంపై నిర్వహిం చిన ఈ వెబినార్లో రీసార్స్ పర్సన్గా పాల్గొన్న కిన్నెర కిరణ్ మాట్లాడుతూ కృత్రిమ మేధస్సు [ప్రక్రియలో కొత్తగా వస్తున్న మార్పులు, సవాళ్ల గురించి వివరించారు. ఇందులో ఉన్న ఉపాధి, ఉద్యోగా వకాశాలను వివరిస్తూ అందుకు అవసరమైన మార్గ నిర్దేశం చేశారు. జె. హను మంతు కన్వీనర్గా వ్యవహరించిన ఈ పెబి నార్లో యూనివర్సిటీ కాలేజ్ ఆఫ్ ఇంజినీరిం గ్ ప్రిన్సిపాల్ డాక్టర్ వి.పెర్సిస్ తదితరులు పాల్గొన్నారు.