



October, 2021 – March, 2022

During this period three different QIP Faculty Development Programmes i.e. Visual Cognition and Intelligent Nano Photonics from 04-09 October 2021, Free and Open-Source ICT Tools for Effective Teaching Learning and Research from 03-08 Jan. 2022 and Embedded Artificial Intelligence from 21-26 March 2022 have been conducted successfully which were duly sponsored by AICTE and a grant of Rs. 93,000/- for each FDP have been received for the proper conduction of the Programme.

Few Glimpses:



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meet.google.com/qdn-gphk-iox?authuser=0

REC Abhinava Tripathi is presenting

```
269  
270 y=rnorm(n=1000, mean=7, sd=10)  
271  
272 lines(density(y), col="blue", lwd=2, ylim=0.05)  
273  
274 legend("topleft", c("y","x"),fill=c("blue","red"))  
275  
276 legend("topright", c("y","x"),fill=c("blue","red"))  
277 legend("bottom", c("y","x"),fill=c("blue","red"))  
278 legend("bottomright", c("y","x"),fill=c("blue","red"))  
279 legend("bottomleft", c("y","x"),fill=c("blue","red"))  
280 #####Reading and wr  
281  
282
```

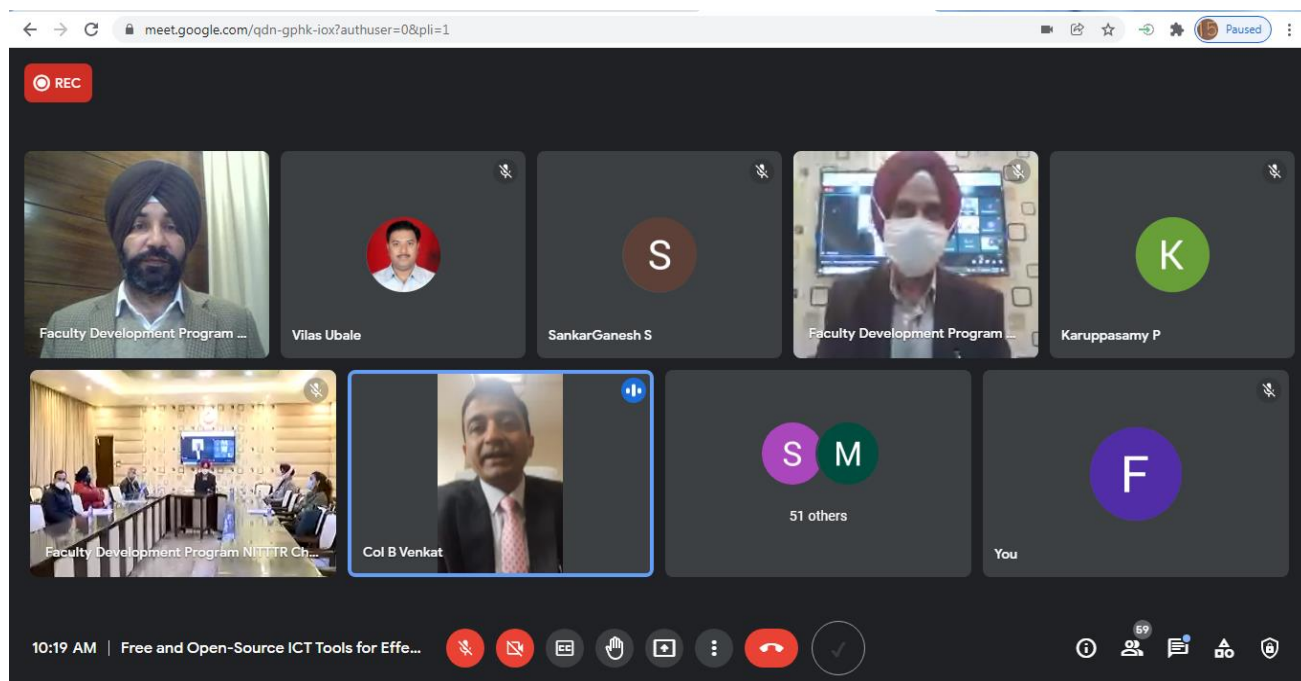
Variable	Value
v1	num [1:4] 1 2 3 4
v2	chr [1:4] "My" "Name" "i..."
v3	"My Name is Abhinava"
v4	"My Name is Abhinava Tri..."
v5	Factor w/ 2 levels "F", "..."
x	num [1:1000] 21.45 14.61...
y	num [1:1000] 5.11 3 29.9...

Density-Graph

11:04 AM | Free and Open-Source ICT Tools for Effe...

Abhinava Tripathi
Dr. N. Saravanan
Athimoolam Sapap...
Karuppasamy P
Manisha Kumawat
Amit Kumar Saini
Dr. Balwinder S. D...
44 others
You

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I. Details of ME Programmes

ME Subjects	Batches	Name of the Faculty
Research Seminar	2021 (Regular)	Dr. Sandeep Singh Gill
Digital Image Processing(ECE-1202)	2021 (Regular)	Dr. Amod Kumar
VLSI Design (ECE-1205)	2021 (Regular)	Dr. Balwinder Raj
Embedded System Design (ECE-1201)	2021 (Regular)	Dr. Kanika Sharma
Wireless & Mobile Communication	2021 (Regular)	Dr. Garima Saini
Advance Computer Network	2021 (Regular)	Dr. Balwinder S Dhaliwal
Research Seminar	2019 (Modular)	Dr. Sandeep Singh Gill
Informative Theory & Coding	2021 (Modular)	Dr. Balwinder S Dhaliwal
VLSI Design	2021 (Modular)	Dr. Balwinder Raj
Advanced Digital Signal processing	2020 (Modular)	Dr. Amod Kumar
Embedded System Design	2019 (Modular)	Dr. Kanika Sharma

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Wireless & Mobile Communication	2019 (Modular)	Dr. Garima Saini
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2. STC Conducted (Contact Online Mode/ICT/Cluster Prog.)

Sr. No.	O. Plan No.	Course Title	Start Date	End Date	Venue	Course Coordinator
1.	SP-55	Visual Cognition	04.10.2021	09.10.2021	NITTTR, Chandigarh	BSD/BR
2.	ECE-6	Python Programming & IoT Applications	04.10.2021	08.10.2021	NITTTR, Chandigarh	BDS/GS
3.	ECE-7	Image and Embedded Processing	04.10.2021	08.10.2021	NITTTR, Chandigarh	AMK/KS
4.	ECE-8	Natural Language processing	08.11.2021	12.11.2021	NITTTR, Chandigarh	AMK
5.	(CP-21-152)	Advance Pedagogy	08.10.2021	18.10.2021	NITTTR, Chandigarh	SSG
6.	ECE-9	Applications of Embedded Systems	22.11.2021	26.11.2022	NITTTR, Chandigarh	KS
7.	ECE-10	ECE Lab Practices for Polytechnic Teachers	22.11.2021	03.12.2021	NITTTR, Chandigarh	BSD/GS
8.	ECE-11	Internet of Things (IoT) and its Applications	06.12.2021	10.12.2021	NITTTR, Chandigarh	BR
9.	ICT-136	Role of De Novo programs in Indian scenario	06.12.2021	10.12.2021	NITTTR, Chandigarh	SSG
10.	ECE-12	MATLAB & its Application	03.01.2022	07.01.2022	NITTTR, Chandigarh	GS
11.	SP-58	Free and open-Source ICT Tools for Effective Teaching Learning and Research	03.01.2022	08.01.2022	NITTTR, Chandigarh	BSD
12.	(CP-21-164)	Advance Pedagogy	17.01.2022	22.01.2022	NITTTR, Chandigarh	SSG
13.	ICT-144	Image and Embedded Processing	17.01.2022	21.01.2022	NITTTR, Chandigarh	AMK/KS
14.	ECE-13	AI and Soft Computing Algorithms for Antenna Design	17.01.2022	21.01.2022	NITTTR, Chandigarh	BSD
15.	ECE-14	Artificial Neural Networks	17.01.2022	21.01.2022	NITTTR, Chandigarh	AMK
16.	ECE-15	Biomedical image and Signal Processing	17.01.2022	21.01.2022	NITTTR, Chandigarh	MS
17.	ECE-16	Nano electronic: Materials, Devices and Circuits	24.01.2022	28.01.2022	NITTTR, Chandigarh	BR
18.	ECE-17	5G & Beyond	31.01.2022	04.02.2022	NITTTR, Chandigarh	GS
19.	ECE-18	Digital Marketing	21.02.2022	25.02.2022	NITTTR, Chandigarh	BSD/KGS
20.	ECE-19	ECE Lab Practices for Polytechnic Teachers	28.02.2022	11.03.2022	NITTTR, Chandigarh	BR/KS

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18.	ECE-17	5G & Beyond	31.01.2022	04.02.2022	NITTTR, Chandigarh	GS
21.	(CP-21-164)	Residential Training for Copa, Data Entry Operator	05.03.2022	14.03.2022	NITTTR, Chandigarh	SSG
22.	(CP-21-164)	Residential Training for Engineering Drawing & Workshop calculation	05.03.2022	14.03.2022	NITTTR, Chandigarh	SSG

23.	(CP-21-165)	Advanced Pedagogy	02.03.2022	08.03.2022	NITTTR, Chandigarh	SSG
24.	(CP-21-164)	Residential Training Electronic Mechanic Radio & TV	05.03.2022	14.03.2022	NITTTR, Chandigarh	SSG
25.	(CP-21-165)	Advanced Pedagogy	09.03.2022	16.03.2022	NITTTR, Chandigarh	SSG
26.	ECE-20	Digital Media Tools for Effective Teaching Learning	14.03.2022	18.03.2022	NITTTR, Chandigarh	BSD
27.	ICT-162	Industry Oriented STC on VLSI Design Tools	21.03.2022	25.03.2022	NITTTR, Chandigarh	SSG/BR
28.	ICT-SP-68	Embedded Artificial Intelligence	21.03.2022	25.03.2022	NITTTR, Chandigarh	AMK/KS
29	(CP-21-167)	Advanced Pedagogy	23.03.2022	29.03.2022	NITTTR, Chandigarh	SSG

Workshops – Online

Name of Workshops	From	To	Name of Faculty
Organized one day seminar on Quality Ecosystem Through NEP-2020, Conducted online by Atmanirbhar Bharat Task Force and Bharatiya Shikshan Mandal, Punjab	26 Oct, 2021	26 Oct, 2021	Dr. Balwinder Raj
One day seminar on “Quality Ecosystem” through NEP 2020			Dr. Balwinder Singh Dhaliwal and Dr. Balwinder Raj

➤ Research & Development: (Completed)

Sr. No	List of ME Final Thesis Students
1.	Kush Singla (2019 Batch, Regular)
2.	KM Shivani (2019 Batch, Regular)
3.	Parminder Kaur (2019 Batch, Regular)
4.	Parul Sharma (2019 Batch, Regular)
5.	Simran Malhotra (2019 Batch, Regular)
6.	Amit Kumar (2018 Batch, Regular)

PAPERS PUBLISHED BY THE DEPARTMENT ECE FACULTY:**NATIONAL JOURNAL**

Sr.No.	Name of the Paper Published	Author (s) Name
1.	Speech-Based Vehicle Movement Control Solution Journal of Telecommunications and Information Technology (IF=0.79) https://doi.org/10.26636/jtit.2021.149820	Gurpreet Kaur, Mohit Srivastava and Amod Kumar
2.	Methods for Integration of III-V Compound and Silicon Multijunction Solar Cell”, Journal of Silicon, Springer, (Accepted 18 Dec 2021)	Divya Sharma, Rajesh Mehra and Balwinder Raj
3.	Design of Spintronics based MRAM and Comparative Analysis and MJT and Sillicon MOSFET”, journal of Silicon, Spriger Accepted 05 February 2022	Parul Sharma, Sandeep Singh Gill and Balwindr Raj
4.	Design and Comparative Analysis of various Mixed Halide Perovskite Solar Cells involving different hold Transport Materials to improve Efficiency, journal of Optical Materials, Elseview	Divya Sharma, Rajesh Mehra and Balwinder Raj
5.	Design and Analysis of various Solar Cell Technologies for improvements in Efficiencies, Indian journal of Engineering and Materials Sciences(IJEMS)Accepted 23 February 2022	Divya Sharma, Rajesh Mehra and Balwinder Raj

PAPERS PUBLISHED / PRESENTED IN:**INTERNATIONAL/ NATIONAL CONFERENCES/SEMINARS**

Sr.No.	Title of the Paper Presented/Accepted alongwith a Name of the Conference/Seminar (venue, with date)	Author (s) Name
1.	“Investigation of Impact of Mobile Phone Radiations of EEG/ECG and Modeling of Their Coherence using ANN Ensemble” 3 rd International Conference on Sustainable and Innovative solutions for Current Challenges in Engineering & Technology (ICSISCET 2021) 13 th - 14 th November, 2021, Madhav Institute of Technology & Science, Gwalior, India	Suman Pattnaik, Balwinder Singh Dhaliwal and SS Pattnaik
2.	“Analysis of the effect of Infill Density of 3D Printed substrate on Rectangular Microstrip Antenna Performance,” IEEE Sponsored ‘Indian Conference on Antennas and propagation (InCAP2021), December 13-16, Technology, Jaipur.	Balwinder Singh Dhaliwal, Kush Singla and Garima Saini
3.	“Flexible wearable Fractal Antennas: An Overview,” National convention of Electronics and Telecommunication Engineers, The Institution of Engineers (India), Bathinda local Centre, Bathinda December 4-5, 2021, PP.1-6, (Published in Proceedings)	Puja Rani, Balwinder Singh Dhaliwal and Amod Kumar
4.	“Compact Wearable Fractal Patch Antenna and its Performance Analysis for BAN,” National Convention of Electronics and Telecommunication Engineers, The Institution of Engineers (India), Bathinda local Centre, Bathinda, December 4-5, 2021, pp.122-130. (published in Proceedings)	Vikas Jain, Shubhranshu Pattnaik, Balwinder Singh Dhaliwal and Jayant G Joshi

Research Projects

Sr. No.	Name of the Project	Activity	Coordinator / Team Member
1.	AICTE RPS project titled “Memristive Non-Volatile SRAM Cell Design for AI Applications”	In progress	Dr. SSGill and Dr. Balwinder Raj

FDP/TRAINING PROGRAMMES / WEBINARS ATTENDED BY FACULTY/STAFF

ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

Sr. No.	Date(s) / Period	Program	Remarks
Sr. No.	Title of Training Programme	Period of Training	Venue/Attended by
1.	“Environment Cyber Physical Systems” sponsored by Indo-South Korea joint Network Centre, IIT Indore and IIT (BHU) Varanasi	25-29 October 2021	Online /Dr. Balwinder Raj
2.	“INUP-i2i Familiarization Workshop on Nanofabrication Technologies” supported by MeitY, Govt. of India and IISC Bangalore	20-22 December 2021	Online/ Dr. Balwindr Raj
3.	“TAPAS-PRM” A purposeful Research Methodology & Interaction course by RERF & EICT- Guwahati	16-20 December 2021	Online/ Dr. Garima Saini
4.	“TAPAS-PRM” A purposeful Research Methodology & Interaction course by RERF & EICT- Guwahati	16-20 December 2021	Online Kanika Sharma
5.	Internet of things and Human-Computer Interaction	25-29 October 2021	Online Kanika Sharma
6.	Attended International E-Conference on Innovations and Challenges in Research publishing	22-23 February 2022	Dr. Balwinder Raj
7.	Research Trends in Wireless Sensors Networks	07-16 March 2022	Dr. Kanika Sharma
8.	Attended one week Short Term Course on NBA Accreditation through outcome based Education (ICT-MED-5)	21-25 February 2022	Dr. Balwinder Raj

Coordinator:
Dr. Kanika Sharma
ECE Department