

**DEPARTMENT NAME: ELECTRONICS AND COMMUNICATION ENGINEERING****REPORT FOR OCTOBER- DECEMBER 2021****I. Details of ME Programmes**

ME Subjects	Batches	Name of the Faculty
Advance Digital Signal Processing (ECE-1101)	M.E (E&CE) 2021-23 batch (Regular)	Dr. Amod Kumar
Advance Digital Signal Processing (ECE-1101)	M.E (E&CE) 2020 batch 3 <sup>rd</sup> spell (Modular)	Dr. Amod Kumar
Information Theory and Coding	M.E (E&CE) 2021 (Regular)	Dr. B S Dhaliwal
Information Theory and Coding	M.E (E&CE) 2021 (Modular)	Dr. B S Dhaliwal
Fiber Optic Communication (ECE-1102)	M.E (E&CE) Regular 2021 Batch, 1 <sup>st</sup> Sem	Dr Balwinder Raj
VLSI Design (ECE1205)	M.E.(E&CE) Modular 2020 Batch and 2021 Batch	Dr Balwinder Raj
Digital System Design	M.E (E&CE) 2021 (Regular)	Dr. Kanika Sharma
Embedded System Design	M.E (E&CE) 2021 (Regular)	Dr. Kanika Sharma
Advance Digital Communication	M.E (E&CE) 2021 (Regular)	Dr. Garima Saini
Wireless and Mobile Communication	M.E (E&CE) 2019 (Modular)	Dr. Garima Saini
Artificial Intelligence lab practice	M.E (A I) 2020 (Regular)	Dr. Garima Saini

**II.****A. STUDENT TRAINING Organized**

Sr. No.	Name of the Course alongwith dates & place	No. of weeks	Participation		Total No. of Participants
			Poly	Engg.	

**B.. INTERNATIONAL CONFERENCES Organized**

Sr. No.	Name of the Seminar/Conference	No. of Participants

**C. NATIONAL CONFERENCES ORGANIZED:**

Sr. No.	Name of the Seminar/Conference	No. of Participants
1	Organized one day seminar on Quality Ecosystem Through NEP-2020, Conducted online by Atmanirbhar Bharat Task Force and Bharatiya Shikshan Mandal, Punjab, held on 26 Oct 2021. ( Dr. Balwinder Raj)	280

2	Organized online 10 <sup>th</sup> Annual Alumni Meet of NITTTR Chandigarh, held on 6 Dec 2021. (Dr. Balwinder Raj)	80
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### III WORKSHOPS CONDUCTED (OTHER THAN CURRICULUM DEVELOPMENT WORKSHOPS):

Sr. No.	Name of the Workshop alongwith dates and venue	No. of Participants
1.	One day Seminar on "quality Ecosystem" through NEP 2020 (Dr. Balwinder Singh Dhaliwal & Dr. Balwinder Raj)	288

### IV. INSTRUCTIONAL MATERIAL DEVELOPMENT

Sr. No.	Type of Instructional Material Developed	Author(s) / Team	Project Completed In progress	Specific Achievements during the year	Target date of completion
<b>PRINT MATERIAL</b>					
<b>NON-PRINT MATERIAL</b>					

### INSTRUCTIONAL MATERIAL DEVELOPMENT

Type of Instructional Material	No. Completed during 2020-21	Remarks (if any)
<b>PRINT :</b>		
Text Books		
Lab. Manuals		
Teachers' Manual		
Modules		
Readers		
Any other (Please specify)		
<b>NON-PRINT :</b>		
Video Films		
CAI Packages		
Experimental Kits		
Charts		
Any other (Please specify)		

Information above to be given only in case of completed Learning Resources. Title of the material(s) (topics/subjects as the case may be) should also be given.

### V. CURRICULUM DEVELOPMENT

#### A. CURRICULA DESIGNED:

**B. CURRICULA REVISED:****C. CURRICULUM DEVELOPMENT WORKSHOPS:**

Sr. No.	Name of Curriculum	Number of Subjects/Course	Beneficiary States	Participation		
				Poly.	Ind.	Others

**VI. RESEARCH AND DEVELOPMENT**

Sr. No.	Name of Project	Team	Beneficiary State	Status of Project completed/ In progress	Specific work done during the year	Target date of completion
<b>A. RESEARCH STUDIES</b>						
<b>B. DEVELOPMENT PROJECTS</b>						

**VII. TRAINING PROGRAMMES ATTENDED BY THE INSTITUTE FACULTY/STAFF**

Sr. No.	Title of Training Programme	Period of Training	Venue	Attended by
1	“Environmental Cyber Physical systems” sponsored by Indo-South Korea Joint Network Center, IIT Indore and <b>IIT (BHU) Varanasi</b>	25-29 October 2021	Online	Dr Balwinder Raj
2	“ <b>INUP-i2i Familiarization Workshop on Nanofabrication Technologies</b> ”, supported by MeitY, Govt. of India and <b>IISc Bangalore</b>	<b>20 – 22 December 2021</b>	Online	Dr Balwinder Raj
3	“TAPAS-PRM” A purposeful Research Methodology & Interaction course by RERF & EICT- Guwahati	<b>16/12/2021 to 20/12/2021</b>	Online	Dr. Garima Saini
4	“TAPAS-PRM” A purposeful Research Methodology & Interaction course by RERF & EICT- Guwahati	<b>16/12/2021 to 20/12/2021</b>	Online	Dr. Kanika Sharma
5	Internet of things and Human – computer Interaction	25/10/2021 to 29/10/2021 NIT Goa (online)	Dr. Kanika Sharma	Internet of things and Human – computer Interaction

**VIII. IN-HOUSE TRAINING PROGRAMMES**

Sr. No.	Title of Training Programme	Period of Training	Attended by

**IX. OTHER CONTRIBUTIONS INCLUDING INDIVIDUAL CONTRIBUTION****A. PATENTS/COPYRIGHT**

Sr.No	Name of Patents/Copyright	Author (s) Name

**B. PAPERS PUBLISHED BY THE INSTITUTE FACULTY:****SCI 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) <a href="https://doi.org/10.26636/jtit.2021.149820">https://doi.org/10.26636/jtit.2021.149820</a>	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

**C. PAPERS PUBLISHED BY THE INSTITUTE:****INTERNATIONAL JOURNAL OTHER THAN SCI JOURNALS**

Sr.No	Name of the Paper Published	Author (s) Name

**D. PAPERS PUBLISHED BY THE INSTITUTE FACULTY:****NATIONAL JOURNAL**

Sr.No.	Name of the Paper Published	Author (s) Name

**E. PAPERS PUBLISHED / PRESENTED IN:****INTERNATIONAL 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	Suman Pattnaik, Balwinder

	<b>Radiations on EEG/ECG and Modeling of Their Coherence using ANN Ensemble”</b> 3 <sup>rd</sup> International Conference on Sustainable and Innovative solutions for Current Challenges in Engineering & Technology (ICSISCET 2021) 13 <sup>th</sup> -14 <sup>th</sup> November, 2021, Madhav Institute of Technology & Science, Gwalior, India	<b>Singh Dhaliwal and S.S. Pattnaik</b>
2.	<b>“Analysis of the effect of Infill Density of 3D Printed substrate on Rectangular Microstrip Antenna Performance,”</b> IEEE Sponsored ‘Indian Conference on Antennas and propagation (InCAP 2021), December 13-16, 2021, Malaviya National Institute of Technology, Jaipur.	<b>Balwinder Singh Dhaliwal, Kush Singla and Garima Saini</b>

#### 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.	<b>“Flexible Wearable Fractal Antennas: An Overview,”</b> 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)	<b>Puja Rani, Balwinder S Dhaliwal and Amod Kumar</b>
2.	<b>“Compact Wearable Fractal Patch Antenna and its Performance Analysis for BAN,”</b> 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)	<b>Vikas Jain, Shubhranshu Pattnaik, Balwinder Singh Dhaliwal and Jayant G Joshi</b>

#### F. ANY OTHER ACTIVITIES:

Dr. Balwinder Singh Dhaliwal, Kush Singla, Garima Saini- analysis of the effect of infill density of 3D Printed Substrate on rectangular Microstrip antenna performance,”IEEE Sponsored” Indian conference on Antenna and Propagation ( In CAP 2021) December 13-16,2021 MNIT, Jaipur.