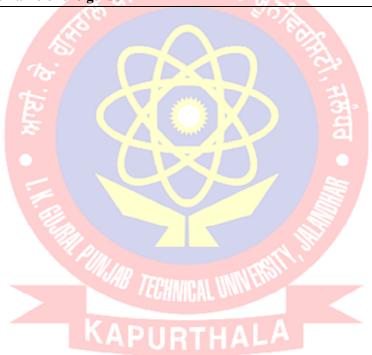
## Department: Electronics & Communication Engineering

3.4.4

## Ph.D's Awarded Per Teacher

Sl.	Documents Attached
No.	
1.	Ph.D. Award letters to Ph.D. Students / Letter from the university
	indicating name of the PhD student with title of the doctoral study and
	the name of the guide



## Department of Electronics and Communication Engineering

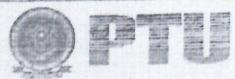
URL for Research page on HEI web site(Indicator 3.4.4)

https://ptu.ac.in/electronics-communication-engineering/research-scholars/

(Signature of Head of Department)

Head
Department of Electronics & Communication Engineering
IK Gujral Punjab Technical University
Main Campus, Kapurthala (Punjab)-144603

Dean Research & Development



ਆਈ. ਕੇ. ਗੁਜ਼ਜ਼ਾਨ ਪੰਜਾਬ ਟੈਕਨੀਕਨ ਯੂਨੀਕਰ ਸਟ Esta. Under Pur an Technical University Act, 1907 (Purseo Act Ho 1 of 1987)

Dates 2" - 35.7 4%

Ref No 16670 /140/ 7019

#### TO WHOM IT MAY CONCERN

It is certified that Mr./Ms. Vikram Mutneja was registered for Ph.D degree with this university in the discipline of Electronics & Communication Engineering.

Mr./Ms. Vikram Mutneja conducted research work on the following topic:

Research Topic	Investigation in Detection, Quality Analysis & Enhancement of Human Facial Images From Low Resolution Surveillance Video
Registration Number	1105001
Registration Date	03.08.2011
Name of Guide	Dr. Satvir Singh, Associate Professor, IKGPTU, Kapurthala
Name of Co-guide (if any)	-NA-

Mr./Ms. Vikram Mutneja submitted his/her Ph.D thesis on 04/12/2017. The same was evaluated by experts. He/she successfully gave his/her viva-voce on 09/05/2018. Subsequently the committee recommended to award the provisional Ph.D degree to Mr./Ms. Vikram Mutneja. The final degree will be awarded after approval of Academic Council and Board of Governors, IKG PTU.

Dean (R&D)

Hood

Main Campus, Kapurthala (Punjab)-1446.

Head

Department of Electronics & Communication Engagement K Guiral Purpose Technological University

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#### Ph.D NOTIFICATION

Ends No. IKOPTUPh.Driva

Dared chill

Notification: IKGPTU/2016/288 for the Ph.D degree award

The the approval of competent authority, the IKG PTU notifies for the award of Ph.D degree to

News, Darshon Singe Sablo Gurdiel Şingh, Regd. No.1105011 in the faculty of Engineer's Electronics and Communication Engineering).

Year of Enrolment	Date of Viva-vice	Title of the Thesis	Name & Address of the Research inprovisor
1 29/1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	17.02.17	DESKON OF DESIGNATION TECHNIQUES	Dr. J.S. Dav 51 Projessor Sant Longowal Institute Engineering & Technology Longowal.
	•		Dr. Dueveer Kour Assistant Projessor. IKG PTU Moin Campus. Kapurthola

The final degree will be uniferred in the annual convocation of the University

Dean (R&D)

Convoller of Examination

Head

Head

Department of Electronics & Communication Engineering IK Gujral Punjab Technical University Main Campus, Kapudhela (Punjab)-144603 Head

Department of Electronics & Communication Engineering
IK Gujral Punjab Technical University
Main Campus, Kapurthala (Punjab)-144503

12

## Ph.D NOTIFICATION

Endst. No. IKGPTU/Ph.D/100

Dated: 08/03/2017

Notification: IKGPTU/2016/286 for the Ph.D degree award

With the approval of competent authority, the IKG PTU notifies for the award of Ph.D degree to Mr/Ms. VIKRANT SHARMA S/D/o RAM LUBHAYA, Regd. No.1005013 in the faculty of Engineering (Electronics and Communication Engineering).

Year of Enrolment	Date of Viva-voce	Title of the Thesis	Name & Address of the
2011	14.02.17	PERFORMANCE OPTIMIZATION OF	Research Supervisor
		MULTIGIGABITS/SEC DWDM RING	Dr. Dalveer Kaur Assistant Professor. Department of Electronic And Communication Engineering. IKG PTU Main Campus.
final degree	will be conf		Kapurthala.

The final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination

Department of Electronics & Communication Engage

IK Guiret Punja o Technical University Man Canon

IK Gujral Punjab Technical Universit

Main Campus, Kapurthala (Punjab)-1440



### Ph.D NOTIFICATION

Endst. No. IKGPTU/Ph.D/ 738

Dated: 16 16 13

Notification: IKGPTU/2018/486for the Ph.D degree award

With the approval of competent authority, I. K. Gujral Punjab Technical University notify the award of Ph.D degree to Mr/Ms. Sarita Sharma S/D/o Hari Dutt Sharma, Regd. No. 1005012 in the faculty of Engineering (Electronics & Communication Engineering). This notification is issued on Loll after completion of thesis work and successfully defended his/her case during presentation among expert panel of university.

Year of	Date of	Title of the Thesis	Name & Address of the
Enrolment	Viva-voce		Research Supervisor
2011	31/08/2018	MICROWAVE CAVITY PERTURBATION  TECHNIQUE FOR MEASURING  DIELECTRIC PROPERTIES OF  MATERIAL AT MICROWAVE  FREQUENCIES.	

Final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination

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Head
Dipatries of Electricis & Commission Transaction
K Colpat Person Transaction Colpation

Head

Department of Destroirs & Communitation Engineering

IK Gograf Puripaci Vectoriscas University

Main Campus, Kapurthala (Punjab)-144603



### Ph.D NOTIFICATION

Endst. No. IKGPTU/Ph.D/740

Dated: 16 10 18

Notification: IKGPTU/2018/488for the Ph.D degree award

With the approval of competent authority, I. K. Gujral Punjab Technical University notify the award

of Ph.D degree to Mr/Ms. Ankur Singhal S/D/o Raj Kumar, Regd. No. 1005002 in the faculty of Engineering (Electronics & Communication Engineering). This notification is issued on G10 18 after completion of thesis work and successfully defended his/her case during presentation among expert panel of university.

Year of Enrolment	Date of Viva-voce	Title of the Thesis	Name & Address of the Research Supervisor
2011	04/09/2018	PERFORMANCE EVALUATION AND OPTIMIZATION OF ACCESS NETWORKS.	Dr. Amit Gupta Assistant Professor, Department of ECE. I. K. Gujral Punjab Technical University, Kapurthala.
			Dr. Charanjeet Singh Professor, Lovely Professional University, Phagwara.

Final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination

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# I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY, JALANDHAR Ph.D NOTIFICATION

Endst. No. IKGPTU/Ph.D/Ryo /2 78

Dated: 26-9-17

Revised Notification: IKGPTU/2017/328 for the Ph.D degree award

With the approval of competent authority, the IKG PTU notifies for the award of Ph.D degree to

Ms/Ms. SANKALAP ARORA S/D/o RAJ KRISHAN ARORA, Regd. No.1203017 in the faculty of Engineering (Computer Science and Engineering).

Year of	Date of	Title of the Thesis	Name & Address of the
Enrolment	Viva-voce		Research Supervisor
2012	17.07.17	Pro property Opening (TATION)	Dr. Satvir Singh Associate Professor, IKG PTU, Kapurthala

The final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination

Registrar

Head

Department of Electronics & Communication Engineering IK Gujral Punjab Technical University

Main Campus, Kapurinala (Punjab)-144603

Plead
Department of Electronics & Communication Security
IK Guiral Punjab Technical University

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#### Ph.D NOTIFICATION

Endst. No. 1KGPTUPh.D 47, 3

Dated: 114115 130

Notification: 1kGPTU/2019/735 for the Ph.D degree award

With the approval of competent authority. I. K. Gujral Punjab Technical University notify the award

of Ph.D degree to Mr'Ms. Surabjeet Singh SiD/o Gurdev Singh, Repd. No. 1203623 in the laculty of Engineering (Computer Science & Engineering). This notification is issued on 17-12-17 after completion of thesis work and successfully defended has her case during presentation among expert panel of university.

Year of	Date of	Title of the Thesis Name & Ad	
Enrolment	Viva-voce	Research Sa	
2012	30 70 2019	PERFORMANCE COMPUTING Associate Pr UNING GPGPU FOR FASIER Kapurthala. EVOLUTIONARY DESIGNS	nfessor

Dr. Vijay Kumar Danga Prot. & Principal. Amrusar College of Engineering & Technology Amrilsar.

Final degree will be conferred in the annual convocation of the University.

A /h 15

Dean (R&D)

Controller of Examination

Registrar

Head

Department of Electronics & Communication Engineering

Head

Region Operator

12

#### Ph.D NOTIFICATION

Endst. No. 1KGPTU.Ph.D. 305

Dated 12/06/2017

Notification: IKGPTU/2017/318 for the Ph.D degree award

With the approval of competent authority, the IKG PTU notifies for the award of Ph.D degree to

Mt/Ms. Palvinder Singh Mann S/D'o Mehar Singh Mann, Regd. No.1203043 in the faculty of Engineering (Computer Science and Engineering).

Year of	Date of	Title of the Thesis	Name & Address of the
Enrolment	Viva-voce		Research Supervisor
2012	30.05.17	IMPROVED METHIEURISTICS FOR ROUTING IN WIRELESS SENSOR NETWORKS	

The final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination

Registrar

Head

Department of Electronics & Communication Engineerin

Main Campus Kapudhala (Dustata 41)



### Ph.D NOTIFICATION

Endst. No. 1KGPTU/Ph.D/ 839

Dated: 38 1 20

Notification: IKGPTU/2020/774 for the Ph.D degree award

With the approval of competent authority, I. K. Guiral Punjab Technical University notify the award of Ph.D degree to Mr/Ms. Jashir Singh S/D/o Gursharan Singh, Regd. No. 1205032 in the faculty of Engineering (Electronics & Communication Engineering). This notification is issued on after completion of thesis work and successfully defended his/her case during presentation among expert panel of university.

Year of Enrolment	Date of Viva-voce	Title of the Thesis	Name & Address of the Research Supervisor
2012	27/12/2019	SYNTHESIS AND INVESTIGATION  OF TUNABLE FERRITE RF  ABSORBER AT X-BAND	Dr. Dalveer Kaur Assistant Professor, IKGPTU Main Campus, Kapurthala.
			Dr. Charanjeet Singh Professor, LPU, Phagwara.

Final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination

Registrar

Main Campus, Kapurihaje (Punjab)-144603



### Ph.D NOTIFICATION

Endst. No. 1KGPTU/Ph.D/950

Dated: || 3, 20

Notification: IKGPTU/2020/797 for the Ph.D degree award

With the approval of competent authority, I. K. Gujral Punjab Technical University notify the award of Ph.D degree to Mr/Ms. Rajat Joshi S/D/o Jagan Nath Joshi, Regd. No. 1105015 in the faculty of Engineering (Electronics & Communication Engineering). This notification is issued on after completion of thesis work and successfully defended his/her case during presentation among expert panel of university.

Year of Enrolment	Date of Viva-voce	Title of the Thesis	Name & Address of the Research Supervisor
2011	01/02/2020	INVESTIGATION OF MICROWAVE ABSORPTION OF SUBSTITUTED Ba Sr FERRITES	
			Dr. Charanjeet Singh Professor, LPU, Phagwara.

Final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination

Registrar

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Head
Department of a corner & Communication Engineering
IK Guyral Punjab Technical University
Main Campus, Kapurthala (Punjab)-144603



## I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY Jalandhar-Kapurthala Highway, Kapurthala – 144603.

## Ph.D NOTIFICATION

Endst. No. IKGPTU/Ph.D/ OOO

Dated: 34 7 2010

Notification: IKGPTU/2020/843 for the Ph.D degree award

With the approval of competent authority, I. K. Guiral Punjab Technical University notify the award of Ph.D degree to Mr/Ms. Neeraj Kumar S/D/o Tilok Ram. Regd. No. 1205029 in the faculty of Engineering (Electronics & Communication Engineering). This notification is issued on 7 2020 after completion of thesis work and successfully defended his/her case during presentation among expert panel of university.

Year of	Date of	Title of the Thesis	Name & Address of the
Enrolment	Viva-voce		Research Supervisor
2012	12/06/2020	ENHANCE THE CAPACITY OF  MULTIUSER WIRELESS  COMMUNICATION SYSTEM  THROUGH INTERFERENCE  CANCELLATION	

Final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination



## Ph.D NOTIFICATION

Endst, No. 1KGPTU/Ph.D/ 951

Dated: 11 3 20

Notification: IKGPTU/2020/799 for the Ph.I) degree award

With the approval of competent authority, I. K. Gujral Punjab Technical University notify the award of Ph.D degree to Mr/Ms. Rajesh S/D/o Phool Kumar, Regd. No. 1105002 in the faculty of Engineering (Electronics & Communication Engineering). This notification is issued on after completion of thesis work and successfully defended his/her case during

presentation among expert panel of university.

Year of Enrolment	Date of Viva-voce	Title of the Thesis	
2011	02/05	SYNTHESIS	Name & Address of the Research Supervisor
		CHARACTERIZATION OF POLYMER  NANOCOMPOSITES FOR  EMBEDDED CAPACITOR  APPLICATIONS	Dr. Dalveer Kaur Assistant Professor, IKGPTU Main Campus, Kapurthala.

Final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination

IK Guiral Durish Technical University



### Ph.D NOTIFICATION

Endst. No. IKGPTU/Ph.D/ 854

Dated: 32 11 12

Notification: IKGPTU/2018/513for the Ph.D degree award

With the approval of competent authority, I. K. Gujral Punjab Technical University notify the award

of Ph.D degree to Mr/Ms. Sarvjit Singh S/D/o Gurmail Singh, Regd. No. 1205037 in the faculty of Engineering (Electronics & Communication Engineering). This notification is issued on after completion of thesis work and successfully defended his/her case during presentation among expert panel of university.

Year of Enrolment	Date of Viva-voce	Title of the Thesis	Name & Address of the Research Supervisor	
2012	29/10/2018	MODELING, SIMULATION AND COMPARATIVE PERFORMANCE ANALYSIS USING WAVELETS FOR VOIP IN WIRELESS DOMAIN.	Dr. Amit Gupta Assistant Professor, I. K. Gujral Punjab Technical University, Main Campus, Kapurthala.	
			Dr. J.S.Sohal Director Ludhiana College Of Engg.Tech. Katani Kalan, Ludhiana.	

Final degree will be conferred in the annual convocation of the University.

Afrije

Dean (R&D)

Controller of Examination

Main Campus, Kapurthala (Punjab)-144603



#### Ph.D NOTIFICATION

Endst. No. 1KGPTU/Ph.D/ [---1]

Dated 2 1 5 2

Notification: IKGPTU/2019/576 for the Ph.D degree award

with the approval of competent authority, I. K. Gujral Punjab Technical University notify the award of Ph.D degree to Mr/Ms. Neha S/D/o Suraj Prakash, Regd. No. 1205005 in the faculty of Engineering (Electronics & Communication Engineering). This notification is issued on presentation among expert panel of university.

Year of Enrolment 2012	Date of Viva-voce 11/02/2019	Title of the Thesis  ENERGY EFFICIENT ROUTING IN  WIRELESS SENSOR NETWORKS.	Name & Address of the Research Supervisor  Dr. Amit Gupta Assistant Professor, Department of Electronics & Communication Engineering IKG PTU Main Campus, Kapurthala,
			Dr. J S Sohal Director. Ludhiana College of Engineering and Technology, Ludhiana.

Final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination

Registrat

Head

Department of Electronics & Constructation Engineering
(IK Guijral Punjab Technical University
Main Campus, Kaputhala (Punjab) 144

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Airudh Pratap Singh
Dean
Research and Development
ਅਨੀਰੁੱਧ ਪ੍ਰਤਾਪ ਸਿੰਘ ਡੀਨ ਰਿਸਰਚ ਅਤੇ ਡਿਵੈਲਪਮੈਂਟ



MET. A. OFFICER. UNIVERSITY JALANDIAN

Jalandhar-Kapurthala Highway Kapurthala-144 603
Tel.: 01822-282569 282572 Fax: 01822-255664
Email: deanricptu@gmail.com. deannc@ptu.ac.in
Website: www.ptu.ac.in

Ref No IKAPTU PSD 1598

Dated 15 11 19

### TO WHOM IT MAY CONCERN

This is to certify that Mr/Ms. Shukhvinder Kaur had been registered for Ph.D degree with this university in the discipline of Electronics & Communication Engg..

Mr/Ms. Shukhvinder Kaur conducted research work on the following topic:

Co-Supervisor Name	Dr. J. S. Sohal, Director, LCET, Ludhiana
Supervisor Name	Dr. Amit Gupta, Assistant Professor, IKGPTU, Kapurthala
Registration Date	22.05.12
Registration Number	1205031
Research Topic	OPTIMIZATION OF SPEAKER DIARIZATION BY REDUCING DIARIZATION ERROR RATE

Mr/Ms Shukhvinder Kaur had submitted his/her research work thesis on 03.01.19. The same has been evaluated by experts. He / She successfully gave his/her viva-voce on 14.11.19. Subsequently, the committee has recommended to award the provisional Ph.D degree to Mr/Ms Shukhvinder Kaur. The final degree will be awarded after approval of Academic Council and Board of Governors, IKG PTU.

Dean (R&D)

Head
Department of Electronics & Communication Engineering
IK Gujrat Punjab Technical University

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### I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

Jalandhar-Kapurthala Highway, Kapurthala - 144603.

### Ph.D NOTIFICATION

Endst. No. IKGPTU/Ph.D/ 1007

Dated: 31/4/2020

Notification: IKGPTU/2020/831 for the Ph.D degree award

With the approval of competent authority, I. K. Gujral Punjab Technical University notify the award of Ph.D degree to Mr/Ms. Vikramjit Singh S/D/o Gurbhej Singh, Regd. No. 1205011 in the faculty of Engineering (Electronics & Communication Engineering). This notification is issued on 24/17/2020 after completion of thesis work and successfully defended his/her case during presentation among expert panel of university.

Year of Enrolment	Date of Viva-voce	Title of the Thesis	Name & Address of the Research Supervisor
2012	07/05/2020	ANALYSIS OF INTERACTIONS OF CARDIOVASCULAR DYNAMICS	Dr. Amit Gupta, Assistant Professor, Department of ECE, IKG PTU Main Campus, Kapurthala.
			Dr. J.S.Sohal Director. Ludhiana College of Engineering and Technology Ludhiana.

Final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination

Registrar

Department of Electronics & Communication Engineering

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Research, Innovation & Consultancy



Dated 06-10-2017

Ref. No PTU/RIC/Ph.D/1505004/1458

Dr. Avtar Singh Butttar

H.O.D(ECE) PUNJAB INSTITUTE OF TECHNOLOGY KAPURTHALA PTU MAIN CAMPUS

Co-Supervisor : Dr. Ashok K.

Goel - EXP0376

Subject:Registration for Ph.D Degree.

Dear Dr. Avtar Singh Butttar,

This is in reference to the research proposal submitted by Mr./Ms. Paurav Goel , Regd. No. 1505004, regarding registration for Ph.D degree under your supervision. On the basis of his Ph.D synopsis presentation and approval by the RDC, the candidate has been registered for Ph.D degree with the Punjab Technical University in the Faculty of Engineering & Technology-Electronics and Communication Engineering, and shall be governed by the Ph.D regulations of the University. On the basis of his Ph.D. synopsis presentation before RDC he/she is now registered with University with following details:-

Thesis Topic	Optimization of Transmit Power using a Computational Intelligence Technique in Cognitive Radio Environments.
Registration No	1505004
Date of presentation	03.10.2017
Date of Enrollment	24.12.2014
RDC comments (For incorp	oration in further research work)
Recommendation	Recommended for further research work,
Objectives	No Change.
Suggestions	No Suggestions.

The candidate should quote his/her regisration number in future correspondence with the university. Further, as per the PTU's Ph.D regulations 2010 the candidate shall be required to submit a pre-thesis abstract to the University. The confirmation of registration for Ph.D is subject to incorporation of comment/suggestions (if any) of experts in further research work.

Yours truly,

(Anlrudh P. Singh) Dean (RIC)

"Developing Youth for a Prosperous Knowledge Society"

ਇੰਦਰ ਕੁਮਾਰ ਗੁਜਰਾਲ, ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ, ਜੰਲਧਰ-ਕਪੂਰਥਲਾ ਰਾਜਮਾਰਗ, ਕਪੂਰਥਲਾ 144601 Inder Kumar Gujral, Punjab Technical University, Jalandhar-Kapurthala Highway, Kapurthala (India) Phone: +91-1822-662558, 662572 Fax: 01822-255504 Website: www.ptu.ac.in E-mail: deanricptu@gmail.com, deanric@ptu.ac.in

> Department of Electronics & Communication Engineering IK Gujral Punjab Technical University Main Campus, Kapurthala (Punjab)-144603



Dean, Research, Innovation & Consultancy



Dated 18-05-2017

Ref. No PTU/RIC/Ph.D/1405017/1344

Dr. Dalveer Kaur

PIT, PTU Campus, Kapurthala

Co-Supervisor: -

Subject:Registration for Ph.D Degree.

Dear Dr. Dalveer Kaur,

This is in reference to the research proposal submitted by Mr./Ms. SUJESH DUTTA, Regd. No. 1405017, regarding registration for Ph.D degree under your supervision. On the basis of his Ph.D synopsis presentation and approval by the RDC, the candidate has been registered for Ph.D degree with the Punjab Technical University in the Faculty of Engineering & Technology-Electronics and Communication Engineering, and shall be governed by the Ph.D regulations of the University. On the basis of his Ph.D. synopsis presentation before RDC he/she is now registered with University with following details:-

Thesis Topic	DESIGN OF HIGH PERFORMANCE MULTIPLE PASS BAND ADAPTIVE PRE-DISTORTED MICROWAVE FILTERS
Registration No	1405017
Date of presentation	17.05.2017
Date of Enrollment	30.01.2014
RDC comments (F	or incorporation in further research work)
Recommendation	Recommended for further research work.
	${f 1}$ To investigate different Microwave Filters using Dielectric Resonators and Multiple Pass Band Filters.
Objectives	2 To design and Implement the Adaptive Microwave Filter based on Pre-Distorsion technique and Multiple Pass band characteristics.
	3 To simulate and analyse the performance of the designed Multiple Pass Band Adaptive Pre distorted filter.
	4 To compare the designed Adaptive Pre-Distorted Multiple Pass Band Filter with the existing ones.
Suggestions	NO

The candidate should quote his/her regisration number in future correspondence with the university. Further, as per the PTU's Ph.D regulations 2010 the candidate shall be required to submit a pre-thesis abstract to the University. The confirmation of registration for Ph.D is subject to incorporation of comment/suggestions (if any) of experts in further research work.

Yours truly,

(Anirudh P. Singh)
Dean (RIC)

Head
Department of Electronics & Communication Engineering
IK Gujral Punjab Technical University
Main Campus, Kapurthala (Punjab)-144603

"Developing Youth for a Prosperous Knowledge Society"

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Inder Kumar Gujral, Punjab Technical University, Jalandhar-Kapurthala Highway, Kapurthala (India)

Phone: +91-1822-662558, 662572 Fax: 01822-255504 Website: www.ptu.ac.in

E-mail: deanricptu@gmail.com, deanric@ptu.ac.in



Dean, Research & Development



Ref. No PTU/RIC/Ph.D/1505025/1727

Dated 23-10-2019

Dear Student Mr./Ms. Pawandeep Kaur , Registration No. 1505025

This is in reference to the research proposal submitted by you. On the basis of your Ph.D synopsis presentation and approval by the RDC, you have been registered for Ph.D degree with the I.K.G. Punjab Technical University in the Faculty of Engineering & Technology-Electronics and Communication Engineering, and shall be governed by the Ph.D regulations 2010 of the University. You are now registered with the University with following details:-

Thesis Topic	Sensitivity Enhancement of
Registration No	Sensitivity Enhancement of a nanoscale GAA MOSFET Architecture for Biosensing Applications 1505025
Date of Enrollment	02.09.2015
Name of Supervisor	Dr. Avtar Singh Butttar - 11050047
Date of presentation	23.10.2019
RDC comments (I	or incorporation in further research work)
Recommendation	Recommended
Objectives	The updated research objectives are as follows:  1. Sensitivity Analysis of Gate-All-Around (GAA) MOSFET for application as Biosensor for label free detection of neutral biomolecules  2. Sensitivity Enhancement of nanoscale GAA MOSFET Biosensor Architecture with the variations of device dimensional parameters
uggestions	3. Validation of proposed GAA biosensor design using TCAD numerical simulation

You should quote your registration number in future correspondence with the university. Further, as per the PTU's Ph.D regulations 2010 you shall be required to submit a pre-thesis/abstract to the University. The confirmation of registration for Ph.D is subject to incorporation of comment/suggestions (if any) of experts in further research work. Your Supervisor/Co-Supervisor will ensure the incorporation of comments (if any) in further research work.

(Anirudh P. Singh) Dean (R&D)

CC to Supervisor :- Dr. Avtar Singh Butttar - 11050047.

"Developing Youth for a Prosperous Knowledge Society"

ਇੰਦਰ ਕੁਮਾਰ ਗੁਜਰਾਲ, ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ, ਜੰਲਧਰ-ਕਪੂਰਥਲਾ ਰਾਜਮਾਰਗ, ਕਪੂਰਥਲਾ 144601 Inder Kumar Gujral, Punjab Technical University, Jalandhar-Kapurthala Highway, Kapurthala (India) Phone: +91-1822-662558, 662572 Fax: 01822-255504 Website: www.ptu.ac.in

E-mail: deanricptu@gmail.com, deanric@ptu.ac.in

Head
Department of Electronics & Communication Engineering
IK Gujral Punjab Technical University
Main Campus, Kapurthala (Punjab)-144603



Dean, Research & Development



Ref. No PTU/RIC/Ph.D/1605009/1671

Dated 05-09-2018

Dear Student Mr./Ms. Shampal Singh , Registration No. 1605009

This is in reference to the research proposal submitted by you. On the basis of your Ph.D synopsis presentation and approval by the RDC, you have been registered for Ph.D degree with the I.K.G. Punjab Technical University in the Faculty of Engineering & Technology-Electronics and Communication Engineering, and shall be governed by the Ph.D. regulations 2010 of the University. You are now registered with the University with following details:-

	An Efficient No.
Thesis Topic	An Efficient Non Orthogonal Serving details:
Porist	An Efficient Non Orthogonal Multiple Access Technique For Future Wireless Communicatio  1605009
Registration No	1605000 Virginia Wireless Communication
Date of Enrollment	
Name of Supervisor	
Name of Co-	Or. Avtar Singh Butttar - 11050047
Supervisor	Dr. Dalveer Kaur - 1105001
Date of presentation	
RDC comments (For I	04.09.2018
Recommendation	ncorporation in further research work)
Jbl	Recommended with above mention title.
Objectives	No Change,
-	More literature survey & gaps in research should be done.
u should quate	statis should be done.
D regularia	regisration number in future correspond

You should quote your regisration number in future correspondence with the university. Further, as per the PTU's Ph.D regulations 2010 you shall be required to submit a pre-thesis/abstract to the University. The confirmation of registration for Ph.D is subject to incorporation of comment/suggestions (if any) of experts in further research work. Your Supervisor/Co-Supervisor will ensure the incorporation of comments (if any) in further research work.

(Anirudh P. Singh) Dean (R&D)

CC to :-

i.) Supervisor :- Dr. Avtar Singh Butttar - 11050047

ii.) Co-Supervisor :- Dr. Dalveer Kaur - 11050016.

"Developing Youth for a Prosperous Knowledge Society"

ਇੰਦਰ ਕੁਮਾਰ ਗੁਜਰਾਲ, ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ, ਜੰਲਧਰ-ਕਪੂਰਥਲਾ ਰਾਜਮਾਰਗ, ਕਪੂਰਥਲਾ 144601 Inder Kumar Gujral, Punjab Technical University, Jalandhar-Kapurthala Highway, Kapurthala (India) Phone: +91-1822-662558, 662572 Fax: 01822-255504 Website: www.ptu.ac.in

E-mail: deanricptu@gmail.com, deanric@ptu.ac.in



### I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

Jalandhar-Kapurthala Highway, Kapurthala - 144603.

#### Ph.D NOTIFICATION

Endst. No. IKGPTU/Ph.D/ OO&

Dated . 21 1 2 201

Notification: IKGPTU/2020/825 for the Ph.D degree award

With the approval of competent authority, I. K. Gujral Punjab Technical University notify the award

of Ph.D degree to Mr/Ms. Chakresh Kumar S/D/o Prem Kumar, Regd. No. 1605012 in the faculty of Engineering & Technology (Electronics & Communication Engineering). This notification is issued on 11/7/2000 after completion of thesis work and successfully defended his/her case during presentation among expert panel of university.

Year of	Date of	Title of the Thesis	Name & Address of the
Enrolment	Viva-voce		Research Supervisor
2016	28/04/2020		Dr. Rakesh Goyal Assistant Professor Department of Electronics & Communication Engineering I. K. Gujral Punjab Technical University, Kapurthala.

Final degree will be conferred in the annual convocation of the University.

Dean (R&D)

Controller of Examination

Registrar

Department of Electronics & Communication Engineering

Head Dayland (Perform & Commission Commission of University Univer

PTU/Phs/244

Ms. Meenakshi Sansoy B1-166, Guru Nanak Nagar, Suranussi, Jalandhar, Punjab

Subject:

Confirmation of Registration for Ph. D program.

Dear Scholar,

This is in the reference to your successful completion of course work of Ph. D program as Provided in clause 11(b) of IKG PTU Ph. D regulations 2016. Your registration is confirmed for pursuing Ph. D program with IKG PTU in the Faculty of Engineering & Technology.

You shall be governed by the Ph. D regulations 2016 of the University with following

Name of the D	- Arcisity	with follow
Name of the Department Name of Supervisor	Electronics & Communication Engineering  Dr. Aviar Singh P.	
Name of Co. C.	Dr. Aviar Singh Buttar	
Name of Co-Supervisor Registration No.	Dr. Rakesh Goyal	
Date of Registration	1705001	and the state of t
entative Topic	01-02-2017	
catative Topic	network lifetime enhancement in wsn	
ou should quote your	The state of the s	

You should quote your above registration number in future correspondence with the university. Further, as per the IKG PTU's Ph. D regulations 2016, you shall appear before the Research Advisory Committee (RAC) once in six months to make a presentation of the progress of your work for evaluation and further guidance till the pre-Ph. D thesis

The Supervisor/Co-Supervisor of student will ensure the incorporation of inputs of RAC.

Yours faithfully,

A MADON STATE Director (R&D)

CC

Dr. Rajneesh Sachdev

1. Dean (R&D)

2. Supervisor and Co-supervisor

3. HOD, Electronics & Communication Engineering

"Propelling Punjab to a Prosperous Knowledge Society

I.K. Gujral Punjab Technical University Empus, Kapurthala (Punjab)-144603

Dr. Anirudh Pratap Singh

Dean
Research and Development

ਡਾ. ਅਨੀਰੁੱਧ ਪ੍ਰਤਾਪ ਸਿੰਘ ਡੀਨ ਰਿਸਰਚ ਅਤੇ ਡਿਵੈਲਪਮੈਂਟ



ਆਈ. ਕੇ. ਗੁਜਰਾਲ. ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ ਜਲੰਧਰ I. K. GUJRAL PUNJAB TECHNICAL UNIVERSITY JALANDHAR

Jaiandhar-Kapurthala Highway, Kapurthala-144 603
Tel.: 01822-282569, 282572 Fax: 01822-255504
Email: deanricptu@gmail.com, deanric@ptu.ac.in
Website: www.ptu.ac.in

Ref No IKGPTULR+D / 1529

Dated 18/10/2019

Mr. Pawan Kumar Ward No.45,H/No. 335,Gali No.2 Green Avenue colony, Near Guru Ramdass nursing college. Hoshiarpur, Punjab

Subject:

Confirmation of Registration for Ph. D program.

Dear Scholar,

This is in the reference to your successful completion of course work of Ph. D program as provided in clause 11(b) of IKG PTU Ph. D regulations 2016. Your registration is confirmed for pursuing Ph. D program with IKG PTU in the Faculty of Engineering & Technology.

You shall be governed by the Ph. D regulations 2016 of the University with following details:-

Name of the Department	Electronics & Communication Engineering
Name of Supervisor	Dr. Satvir singh
Name of Co-Supervisor	NA
Registration No.	1805001
Date of Registration	24-07-2018
Tentative Topic	Optimization of GFDM communication system

You should quote your above registration number in future correspondence with the university. Further, as per the IKG PTU's Ph. D regulations 2016, you shall appear before the Research Advisory Committee (RAC) once in six months to make a presentation of the progress of your work for evaluation and further guidance till the pre-Ph. D thesis presentation.

The Supervisor/Co-Supervisor of student will ensure the incorporation of inputs of RAC.

Yours faithfully,

Dean R&D

CC

- 1. Supervisor
- 2. HOD, Electronics & Communication Engineering

Head
Department of Electronics & Communication Engineering
IK Gujral Punjab Technical University
Main Campus, Kapurthala (Punjab)-144603

# Department of Research & Development



Ref. No. 1KQ PTU Phb 22

Dated |3 3 18

Mr. Pradeep Kumar S/o Sh. Bhupinder Kumar Sharma H. No. 391-A, Sector – 43 A Chandigarh, Punjab

Subject:

Provisional re-registration for Ph. D programme.

Dear Scholar,

This is in the reference to your request for re-registration for PhD programme against this office Admission Notice Ref No. IKGPTU/R&D/1281 dated 12.12.2017. You are informed that you have been provisionally re-registered for PhD programme under Ph. D regulations 2016 of this University subject to the passing of following subject(s) of PhD course work:-

Particulars	Subjects		
	Passed	Pending	
Name of allotted subjects	PGRM-101	Human Values & Professional Ethics	
	ECE-503	Presentation	
Registration No.	1105022		
Date of Re-registration	01-03-2018		
Faculty/Department	Engineering & Technology/Electronics & Communication Engineering		
Tentative Topic	Switching Through Optical Fiber Communication		
Tentative Topic			

You will be governed by the Ph. D regulations 2016 of the University. The tenure of your PhD degree will be 4 years. There will be extension of two years as prescribed in PhD regulations 2016.

You should quote your above registration number and date of re-registration in future correspondence with the university.

Yours faithfully,

CC 1. Supervisor

2. HOD, Electronics & Communication Engineering

Head A

Note: Duration of re-registration candidates will be decided by deducting the break in period from total permissible duration.

| K Gural Punjab Technical United Section 1. | Main Campus, Kapurthala (Punjab).

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I.K. Gujral Punjab Technical University

Jalandhar Kapurthala Highway, Kapurthala — 144603, Ph.: 01822-662558 Mobile: 9478098021 Email: pturajneesh@ptu.ac.in Website: www.ptu.ac.in



Dean, Research & Development INDER KUMAR GUJRAL



Dated: 17-09-2019

Dear DAYAL SATI,

Subject: Admission to Ph.D. Programme of IKGPTU

On the recommendations of the Ph.D. Admission Committee and duly approved by Dean (Research and Development) you have been provisionally admitted to the Ph.D. Programme for the Session Summer 2018. The Provisional Registration number alloted to you is 1905001. This Registration number has to be quoted for all the future correspondence. You will have to attend a regular PhD course work for six months at university campus in accordance with Ph.D. Regulations 2016. The norms of Ph.D. Regulations will be applicable.

Your provisional details are as under:

Strea	m: Engineering & Technology	
Discip	oline: Electronics and Communication Engineering	
S.No	Subjects	
Subje	cts allotted for course work	
1.	Research Methodology (ECE)	

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Inder Kumar Gujral, Punjab Technical University, Jalandhar-Kapurthala Highway,

Kapurthala (India)

Phone: +91-1822-662558, 662572 Fax: 01822-255504 Website: Will Campus Kapudhala (Punjab)-144667

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