

# PUNJAB TECHNICAL UNIVERSITY, JALANDHAR

## NOTIFICATION

Dated: 26-5-10

Result Notification: PTU/2010/62 for the Ph. D. Examination 2010.

In consequent to having fulfilled the required criteria and on recommendation of the Academic Council, the Board of Governors, PTU has approved award of degree of Doctor of Philosophy (Ph. D.) to the student of this University in Faculty of Engineering.

Regd. No.	Name	Father's Name	Year of Enrolment	Name & Address of the Research Supervisor
05.19.04	Balkar Singh, Dy. Dean, PTU, Jalandhar	Sh. Gurmail Singh	2004	Dr. Vijay Kumar, Jodan, Asstt. Prof. Deptt. of Mechanical Engg., TIET, Patiala (Guide) Dr. Sehajpal Singh, Prof. Mechanical Engg., GNDEC, Ludhiana

Title of the Thesis: "Nonlinear transient analysis of flexible non-recessed hybrid journal bearing using finite element modeling"

*Buta Singh*  
26/5/10  
Dr. Buta Singh  
(Dean Academics)

*Nachhattar Singh*  
Dr. Nachhattar Singh  
(Dean Examination)

*Registrar*  
Registrar

*[Signature]*  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar  
*[Signature]*

(2)



Hull No.: 92

Regt. No.: 93 X /A.715

The Senate of  
**GURU NANAK DEV UNIVERSITY**

have conferred upon

**HARMEEN KAUR**

son/daughter of

**HARBHAJAN SINGH SOCH**

the degree of  
**Doctor of Philosophy**

in the faculty of

**ECONOMICS & BUSINESS (MANAGEMENT)**

*R. Bawa*  
Registrar

*Rajta*

*S.P. Singh*  
Vice-Chancellor

*S.R. Singh*  
Chancellor

Amritsar April 21, 2005

253

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*Sho*

*Jh*  
Head  
Department of Management  
IKG Gujral Punjab Technical University  
Kapurthala-144 603

*for*

*2.4.2*

13



Roll No.: 59

Regd No.: 94.REJ/A.275

The Senate of  
**GURU NANAK DEV UNIVERSITY**

have conferred upon

MONIKA SACHDEVA

son/daughter of

SAT PAUL SACHDEVA

the degree of  
**Doctor of Philosophy**

in the faculty of

ENGINEERING & TECHNOLOGY (COMPUTER SC. & ENGG.)

Annexure -  
2.4.2

Registrar

Vice-Chancellor

Chancellor

Amritsar : September 3, 2012

PHD 2.4.2  
Certificate

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*Shro w*

ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ  
**PUNJAB TECHNICAL UNIVERSITY**



**Doctor of Philosophy**

This is to certify that *Yadwinder Singh Brar* Son of *Shri Gurdev Singh*, and of the Faculty of *Engineering*, has been awarded the Degree of *Doctor of Philosophy (Electrical Engineering)* of this University in *2005*.

The topic of his Thesis was *Economic Dispatch of Electric Power System with Conflicting Objectives.*

Given under the seal of the University

*[Signature]*  
REGISTRAR  
16 Feb 2005

*[Signature]*  
VICE-CHANCELLOR

*[Signature]*  
CHANCELLOR

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*[Handwritten mark]*

5

Serial No. 101314

Enrolment No. 069503

### भारतीय प्रौद्योगिकी संस्थान रुड़की

अभिषद् की अनुसंधान पर  
डॉक्टर ऑफ़ फिलॉसफी  
की उपाधि

**विकास चावला**

को, जिन्होंने इस उपाधि को अर्जित हेतु विनियम विहित अपेक्षाओं को सन् 2010 में सफलतापूर्वक पूरा कर लिया है, पुरस्कार प्रदान करता है।  
शोध प्रबन्ध शीर्षक: हाट कोरोजन एण्ड इरोजन बीहेवियर ऑफ नैनोस्ट्रक्चर्ड एण्ड कानवेंशनाल कोटिंग्स  
भारतीय गणराज्य के अन्तर्गत रुड़की में आज, दिनांक 13 नवम्बर 2010, संस्थान की मुद्रा अंकित यह उपाधि दी गई।

*Self call*

### INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

On the recommendation of the Senate hereby confers the degree of

**Doctor of Philosophy**

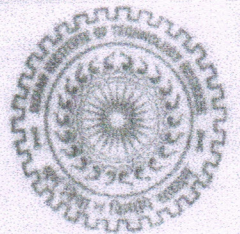
upon

**VIKAS CHAWLA**

who has successfully completed in the year 2010 the requirements prescribed under the regulations for the award of this degree

Thesis Title: **HOT CORROSION AND EROSION BEHAVIOUR OF NANOSTRUCTURED AND CONVENTIONAL COATINGS**

Given this day, the 13<sup>th</sup> of November 2010, under the seal of the institute at Roorkee in the Republic of India.



*[Signature]*  
अध्यक्ष, अभिचारक परिषद्  
Chairman, Board of Governors

*[Signature]*  
निदेशक एवं अध्यक्ष, अभिषद्  
Director & Chairman, Senate

*[Signature]*  
कुलसचिव  
Registrar

*[Signature]*  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar  
*[Signature]*

6

प्रविष्टि संख्या/Entry No. 2002RME022

## भारतीय प्रौद्योगिकी संस्थान दिल्ली

अभिषद की अनुशंसा पर

विद्या वाचस्पति

की उपाधि एतद्द्वारा

नील कंठ ग्रोवर

को प्रदान करता है।

शोध-प्रबन्ध शीर्षक : न्यूमेरिकल स्टडीज़ ऑन मल्टीकम्पोनेन्ट ड्रॉपलेट इवैपोरेशॉन ऐन्ड कम्बुश्चन ऐट नार्मल ऐन्ड हाई ऐम्बिएन्ट प्रेसर्स ।  
भारतीय गणराज्य के अन्तर्गत दिल्ली में आज, दिनांक 7 अगस्त 2010 को संस्थान की मुद्रा अंकित यह उपाधि दी गई।

### Indian Institute of Technology Delhi

Upon the recommendation of the Senate hereby confers the degree of

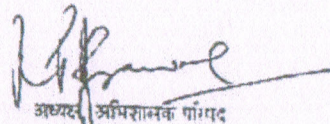
Doctor of Philosophy

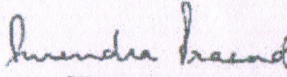
on

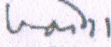
NEEL KANTH GROVER


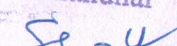
Thesis title : NUMERICAL STUDIES ON MULTICOMPONENT DROPLET EVAPORATION AND COMBUSTION AT NORMAL AND HIGH AMBIENT PRESSURES.

Given this day, the 7<sup>th</sup> of August 2010, under the seal of the Institute at Delhi in the Republic of India.

  
अध्यक्ष, अभिषासक पौरुषद  
Chairman, Board of Governors

  
निदेशक एवं अधुष, अभिषद  
Director & Chairman, Senate

  
कुनसधिय  
Registrar

  
DEAN  
R&D Deptt.  
IITG Punjab  
Jalandhar  




7

# Punjab University

Doctor of Philosophy  
(In the faculty of Science)

Roll No. 1773



(14)

Certified that Ashish Arora, Regd. No. 2005-ez-48,  
son of Shri Krishan Arora, and of  
the Punjab State, has obtained the degree of Doctor of Philosophy  
of this University on the result of the examination held in 2010.

Given under the seal of the University

A. K. Shandhu  
Controller of Examinations

*S. S. Ban*  
Registrar

Chandigarh, March, 21, 2010

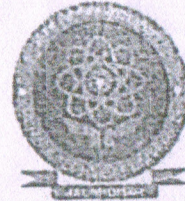


*[Signature]*  
Head  
Department of Mathematical Sciences  
I.K. Gujral Punjab Technical University  
Kapurthala-144270 Pb. (India)

*[Signature]*  
Vice Chancellor  
*[Signature]*  
Chancellor

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

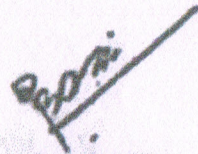
ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ  
Punjab Technical University  
Jalandhar



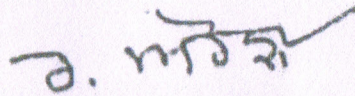
Doctor of Philosophy

The Board of Governors of Punjab Technical University, Jalandhar upon the recommendation of the Academic council hereby confers on Mr. Amit Sarin Son of Sh. Madan Lal Sarin Degree of Doctor of Philosophy in the faculty of Applied Sciences. The subject on which He presented the thesis for the Degree was " Study of Metallic and Organic Contaminants on Bio Diesel Stability and Physico-Chemical Properties "

Given under the seal of the University



ਰਜਿਸਟਰਾਰ  
Registrar  
Jalandhar, 16/08/11



ਵਾਈਸ-ਚਾਂਸਲਰ  
Vice-Chancellor



ਪ੍ਰੋਫੈਸਰ ਓਫ ਫਿਜ਼ਿਕਲ ਸਾਇੰਸ  
Professor of Physical Sciences  
Punjab Technical Univ.



ਚਾਂਸਲਰ  
Chancellor

ICG Punjab Technical Univ.

ICG



Regd No.: 95 DA/A-935

Roll No.: 43

The Senate of  
**GURU NANAK DEV UNIVERSITY**

have conferred upon

GAURAV BHARGAVA

son/daughter of

HIRA LAL BHARGAVA

the degree of  
**Doctor of Philosophy**

in the faculty of

APPLIED SCIENCES (APPLIED CHEMISTRY)

*R. Barua*

Registrar

*Sai. Rup Singh*

Vice-Chancellor

*[Signature]*

*[Signature]*

Chancellor

Amritsar : September 4, 2007

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*[Handwritten initials]*

# महर्षि दयानन्द विश्वविद्यालय

10

विश्वविद्यालय  
संस्कृत-विभागाध्यक्ष

प्रमाणित किया जाता है कि ..... सतवीर सिंह  
 सपुत्र/सपुत्री था ..... मोहि-उ-सिंह  
 को ..... इलेक्ट्रॉनिक्स एंड कम्युनिकेशन विषय में  
 डॉक्टर ऑफ फिलॉसफी का उपाधि प्रदान की जाती है।  
 शोध प्रबंध का विषय "प्रकार-1 और प्रकार-2 फजी प्रणाली के विकास की  
 जांच"

अधिसूचना की तारीख 04.04.2011

13

## Maharshi Dayanand University

2-4-2

This is to certify that ..... Patvir Singh  
 son/daughter of Shri ..... Mohinder Singh  
 is hereby awarded the degree of Doctor of Philosophy in the subject of  
 Electronics & Communication  
 Title of Thesis "Investigations in Evolution of Type-1 and  
 Type-2 Fuzzy Systems"

Date of completion 04.04.2011

(विश्वविद्यालय के मुद्रांकन द्वारा प्रमाणित)  
I Guarantee the verity of the above

*Bhiminder*

परीक्षा-निर्वाहक

Controller of Examinations

काननसिंह

संस्तक, तिथि मार्च 24, 2011

Respected, Dated March 24, 2011

*Jagannath*

कुलापति

Vice-Chancellor

Jagannath

कुलापति

V-Chancellor



DEAN  
 R&D Deptt.  
 IKG Punjab Technical Univ.  
 Jalandhar

*Handwritten signature*

# Punjab University

## Doctor of Philosophy

(In the Faculty of Science)

Certified that Hitesh Sharma, Regd. No. 96-phy-39, son of Shri Buni Chand, and of the Himachal Pradesh, has obtained the degree of Doctor of Philosophy of this University on the result of the examination held in 2005.

Given under the seal of the University

*Sodh*  
Controller of Examinations

*Paramjit Singh*  
Registrar

Chandigarh, February 7, 2005



*Ka Pathak*  
Vice-Chancellor

*[Signature]*  
CHANCELLOR  
DEAN

*[Signature]*  
Department of Physical Sciences  
IKG Punjab Technical Univ.  
Jalandhar

क्रमांक 345  
पत्र सं.



दिनांक 08-11-2023  
पत्र सं.

# कुरुक्षेत्र - विश्वविद्यालयः

डॉक्टर ऑफ़ फिलॉसॉफी

इदमत्र प्रमाणित्वायम् रंजीत सिंह

श्री सुरता राम महोदयस्य पुत्र/पुत्री 2004

कले संवत्सरे आचार्य स्व. प्रबन्धन संकाय संवत्स

विश्वविद्यालयस्य इंजिनियरिंग कॉलेज मैनेजिमेंट विभा

डॉक्टर ऑफ़ फिलॉसॉफी इत्युपाधिना अनासक्त/सुलभसुक्ता इति।

अस्य/अस्याः शोध प्रबन्धास्य विषयः "पब्लिक रिलेशन्स में जन-सम्पर्क की भूमिका: नवप्रतिष्ठित उपग्रहों का एक अध्ययन" इत्यासीत्।

## Kurukshetra University

Doctor of Philosophy

This is to certify that Ranjit Singh  
son/daughter of Shri. Suresh Ram and  
of the Faculty of Commerce And Management has been awarded  
the Degree of Doctor of Philosophy (Unassisted Mode) through  
of this University, in 2024.

The topic of his/her Thesis was, "Role of Public Relations  
In Economic Development (A Study of Selected Undertakings)"

[Signature]  
Registrar  
कुरुक्षेत्र  
Kurukshetra Univ., B. Sonu, 2004  
पत्र सं. 08-11-2023

[Signature]  
Vice-Chancellor  
कुरुक्षेत्र

[Signature]  
Chairman  
कुरुक्षेत्र

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

[Signature] [Signature]

Serial No. 131885

Enrolment No. 09914030

भारतीय प्रौद्योगिकी संस्थान रुड़की

अभिषद् की अनुमति पर

विद्या वाचस्पति

की उपाधि

राजीव चौहान

को, जिन्होंने इस उपाधि को अर्जित हेतु विनियम विहित अपेक्षाओं को सन् 2013 में सफलतापूर्वक पूरा कर लिया है, पत्रद्वारा प्रदान करता है।

शोध प्रबन्ध शीर्षक: स्टडी ऑन लिक्विफैक्शन बिहेवियर ऑफ रीनफोर्सड सैंड

भारतीय गणराज्य के अन्तर्गत रुड़की में आज, दिनांक 21 सितम्बर 2013, संस्थान की मुद्रा अंकित यह उपाधि दी गई।

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

On the recommendation of the Senate hereby confers the degree of

Doctor of Philosophy

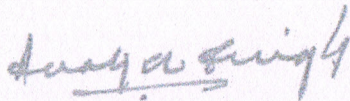
upon

RAJIV CHAUHAN

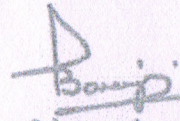
who has successfully completed in the year 2013 the requirements proscribed under the regulations for the award of this degree

Thesis Title: STUDY ON LIQUEFACTION BEHAVIOUR OF REINFORCED SAND

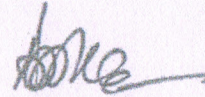
Given this day, the 21<sup>st</sup> of September 2013, under the seal of the institute at Roorkee in the Republic of India.



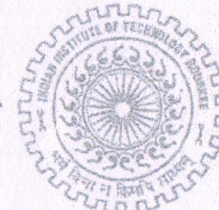
अध्यक्ष, अभिशासक परिषद्  
Chairman, Board of Governors



निदेशक एवं अध्यक्ष, अभिषद्  
Director & Chairman, Senate



कुलसचिव  
Registrar



DEAN

R&D Deptt

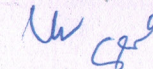
Department of Civil Engineering

IKG Punjab Technical Univ.

Jalandhar



Head



Kapurthala-144603

# Punjab University

Doctor of Philosophy  
(In the Faculty of Science)

Certified that Mukta Sharma, Regd. No. 97-gd-6,  
daughter of Shri Rabinder Sharma, and of the Punjab  
State, has obtained the degree of Doctor of Philosophy of  
this University on the result of the examination held in 2008.

Given under the seal of the University

A. K. Bhandari  
Controller of Examinations

Manish S. Bani  
Registrar

Chandigarh, June 7, 2008



Ranjit Sobti  
VICE-CHANCELLOR

Prakash  
Director  
I.K.G.P.T.U  
Mohali Campus-II

Chandigarh  
CHANCELLOR

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

Mukta  
u  
cb

17

17

28



Regd No.. 2001.F1.T7A.82

Roll No.: 20

# The Senate of GURU NANAK DEV UNIVERSITY

have conferred upon

DALVEER KAUR

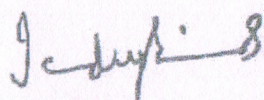
HARBHAJAN SINGH DOGRA

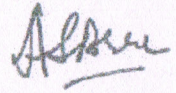
son/daughter of


the degree of  
Doctor of Philosophy

in the faculty of

ENGINEERING & TECHNOLOGY (ELECTRONICS TECHNOLOGY)

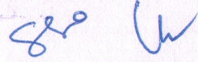
  
Registrar

  
Vice-Chancellor

  
Chancellor

Amritsar : February 19, 2010

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar



IKG Punjab Technical Univ.  
Jalandhar  
Amritsar

19

# Punjab Technical University

Jalandhar



## Doctor of Philosophy

The Board of Governors of Punjab Technical University, Jalandhar, upon the recommendation of the Academic Council hereby confers on Mr. Ms. Deeptika Bhatta Son/Daughter of Sh. Harbinder Singh Chabra Degree of Doctor of Philosophy in the faculty of Electrical Engineering. The subject on which He/She presented the thesis for the Degree was "Identification of Transformer Incipient Faults using Artificial Intelligence Techniques".

Given under the seal of the University

*[Signature]*  
 Registrar  
 Jalandhar, 12/08/2014

*[Signature]*  
 Vice-Chancellor

*[Signature]*  
 Chancellor

DEAN  
 R&D Deptt.  
 IKG Punjab Technical Univ.  
 Jalandhar

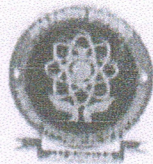
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20

EDP S. No. : 800000103

Registration Roll No

ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ  
**Punjab Technical University**  
 Jalandhar



**Doctor of Philosophy**

The Board of Governors of Punjab Technical University, Jalandhar upon the recommendation of the Academic council hereby confers on Mr./Ms Anshu Oberoi Son/Daughter of Sh. B. L. Oberoi Degree of Doctor of Philosophy in the faculty of Computer Science and Engineering. The subject on which He/She presented the thesis for the Degree was " Quality of Service (QoS) in IP over WDM for Optical Networks. "

Scanned by CamScanner

*[Handwritten Signature]*

ਰਜਿਸਟਰਾਰ  
 Registrar  
 Jalandhar, 12/08/2014

Given under the seal of the University

*[Handwritten Signature]*  
 ਚਾਂਸਲਰ  
 Vice-Chancellor

*[Handwritten Signature]*  
 ਚਾਂਸਲਰ  
 Chancellor

DEAN  
 R&D Deptt.  
 IKG Punjab Technical Univ.  
 Jalandhar

*[Handwritten Signature]*

*[Handwritten Signature]*

Serial N<sup>o</sup> S9271

Roll No. 2413

Registration No. PUP(PH.D)2010-132

25

# Punjabi University Patiala



(Established under Punjab Act No. 35 of 1961)

## Doctor of Philosophy

Certified that Haaja, son/daughter  
of Shri Jagdeep Kumar and Smt. Vijay Taxmi,  
of the Punjab State  
has this day been admitted by the Senate in the degree of

## Doctor of Philosophy

in

Image Retrieval Using Radial Moments

in the faculty of

Physical Sciences

Given under the seal of the University.

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

Gene U

*[Signature]*

REGISTRAR  
PATIALA May 6, 2013

*[Signature]*

CHANCELLOR

*[Signature]*

VICE-CHANCELLOR



I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY,  
JALANDHAR

22

Ph.D NOTIFICATION

Endst. No. IKGPTU/Ph.D/841

Dated: 28/1/20

Notification: IKGPTU/2020/771 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. *Gazal Sharma S/D/o Shashi Pal Sharma*, Regd. No. 1115007 in the faculty of *Life Sciences (Biotechnology)*. This notification is issued on 28/1/20 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	23/12/2019	EVALUATION OF PHYSIOCHEMICAL PROPERTIES AND STABILITY OF L-ASPARAGINASE LOADED SOLID LIPID NANOPARTICLES	Dr. A.P. Singh (Administrative Guide), Dean (R&D), I. K. Gujral Punjab Technical University, Kapurthala.  Dr. Amit Kumar Goyal Professor, Dept of Pharmacy, Central University, Rajsthan.

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

*A.P. Singh*  
Dean (R&D)

*[Signature]*  
Controller of Examination

*[Signature]*  
Registrar

Head  
Deptt. of Food Science & Technology  
I.K. Gujral Punjab Technical University  
KAPURTHALA

*[Signature]*  
28/1/20

*[Signature]*  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*[Signature]*



Registration No.7163-PG-2005

# स्नातकोत्तर चिकित्सा शिक्षा एवं अनुसंधान संस्थान चण्डीगढ़ - 160 012 (भारत)

प्रमाणित किया जाता है कि शबीर सिद्धु को फरवरी, 2010 की परीक्षा में उपाधि के योग्य सिद्ध होने पर डॉक्टर ऑफ फिलासफी (पीएच.डी.) की उपाधि से विभूषित किया जाता है।

थीसिस का विषय: "इफैक्ट ऑफ मेलोटोनिन, रोसिग्लिताजोन एण्ड एम्बलिका ऑफिसनलिस ऑन पैंक्रियाटिक रीजेनरेशन इन रैट मॉडल ऑफ एक््यूट पैंक्रियाटाइटिस"



POSTGRADUATE INSTITUTE OF MEDICAL EDUCATION & RESEARCH,  
CHANDIGARH - 160012 (INDIA)

*This is to certify that SHABIR SIDHU having been found qualified in the examination held in FEBRUARY, 2010 for the Degree of DOCTOR OF PHILOSOPHY (Ph.D.) has been duly admitted to the said degree.*

Subject of thesis: "EFFECT OF MELATONIN, ROSIGLITAZONE AND EMBLICA OFFICINALIS ON PANCREATIC REGENERATION IN RAT MODEL OF ACUTE PANCREATITIS".

कुलसचिव  
REGISTRAR

संकायाध्यक्ष  
DEAN

निदेशक  
DIRECTOR

PRESIDENT

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar  
Deptt. of Food Science & Technology  
L.K. Gujral Punjab Technical University  
KAPURTHALA

दिनांक :  
Dated : 4<sup>th</sup> February 2011

U/  
obtain

# Punjab University

Roll No. 2359



## Doctor of Philosophy

( In the faculty of Business Management & Commerce )

Certified that Mandeep Kaur, Regd. No. 2005-22-99  
daughter of Shri Jaswant Singh, and of  
the Punjab State, has obtained the degree of Doctor of Philosophy  
of this University on the result of the examination held in 2012

Given under the seal of the University

*[Signature]*  
Controller of Examinations

*[Signature]*  
Registrar

*[Signature]*  
Vice Chancellor

*[Signature]*  
Chancellor



Chandigarh, September, 17, 2012

*[Small Stamp]*

DEAN  
R & D Deptt  
IKG Punjab Technical Univ.  
Jalandhar

*[Handwritten initials]*

Head  
Department of Management  
I.K. Gujral Punjab Technical University  
Kapurthala-144 603

*[Handwritten initials]*

25



Roll No.: 71001400011

Regd No.: 2000.MJ/A.557

The Senate of  
**GURU NANAK DEV UNIVERSITY**

have conferred upon

POOJA MEHTA

son/daughter of SURINDER KUMAR MEHTA

the degree of  
**Doctor of Philosophy**

in the faculty of ECONOMICS & BUSINESS (BUSINESS ADMINISTRATION)

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

Professor Incharge (Examinations)

Amritsar : June 25, 2014

Registrar

Vice Chancellor


Chancellor

255

Head  
Department of Management  
I.K. Gujral Punjab Technical University  
Kapurthala-144 603

Roll No.: 102

Regd No: 98 (PG/A) 102

  
 The Senate of  
**GURU NANAK DEV UNIVERSITY**

have conferred upon

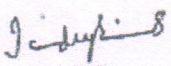
\_\_\_\_\_


son/daughter of \_\_\_\_\_


the degree of  
**Doctor of Philosophy**

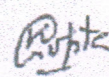
in the faculty of \_\_\_\_\_

ECONOMICS & BUSINESS (BUSINESS ADMINISTRATION)

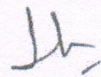
  
 Registrar  
 Amritsar: March 3, 2014

  
 Vice-Chancellor

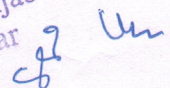
  
 Chancellor



Scanned by CamScanner

  
 Head  
 Department of Management  
 I.K. Gujral Punjab Technical University  
 Kapurthala-144 603

  
 DEAN  
 R&D Deptt.  
 IKG Punjab Technical Univ.  
 Jalandhar



27

Serial No. PH-49076

Registration No. PED 1108

**Sant Longowal Institute of Engineering and Technology**  
(Deemed University, Under MIRD, Govt. of India)  
**Longowal, Distt. Sangrur (Punjab) -148106**

Upon recommendation of the Senate hereby confers the degree of  
**Doctor of Philosophy**

on  
**RAJPREET KAUR**

Daughter of Sh. RAM ASRA SINGH

THESIS TITLE: **WORK AND FAMILY LIFE BALANCE AMONG POLICE PERSONNEL: A CASE STUDY OF PUNJAB POLICE**

Given this day, the 7<sup>th</sup> April, 2017, under the seal of the Institute at Longowal in the Republic of India

**संत लौंगोवाल अभियांत्रिकी एवं प्रौद्योगिकी संस्थान**

कॉम्प्यूटर के अध्ययन पर

**विद्या वाचस्पति**

की उपाध्यक्षता द्वारा

**राजप्रीत कौर**

पुत्री श्री राम आसरा सिंह

की पदवी प्रदान की।

शोध प्रबन्ध शीर्षक : वर्क एंड फैमिली लाइफ बैलेंस अमोंग पुलिस पर्सनलिन : ए केस स्टडी ऑफ पंजाब पुलिस  
मान कोर्न मन हो नकार ललतू को धारणा कागज के प्रथम लौंगोवाल में भिन्न संयोजन की मूला प्रतिक्रिया पर आधारित प्रदान की गयी।



DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*[Signature]*  
Vijay Singh  
Registrar

*[Signature]*  
Rajpreet

*[Signature]*  
Director & Chairman, Senate

*[Signature]*  
Chairman, Board of Management

*[Signature]*  
Head  
Department of Management  
I.K. Gujral Punjab Technical University  
Kapurthala-144 603

*[Signature]*

253

78

28



# Panjab University

## Doctor of Philosophy

( In the faculty of Science )

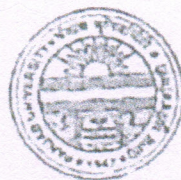
Roll No. 2825



Certified that Megha Goyal . Regd. No. 06-math-44 .  
 daughter of Shri Rakesh Goyal . and of  
 the Punjab State . has obtained the degree of Doctor of Philosophy  
 of this University on the result of the examination held in 2014 .

Given under the seal of the University

*Rhingsh*  
 Controller of Examinations  
*[Signature]*  
 Registrar



*[Signature]*  
 Vice Chancellor  
*[Signature]*  
 Chancellor

Chandigarh. May. 27. 2014

*[Signature]*

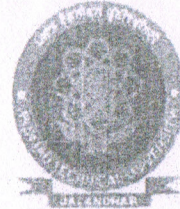
Department of Mathematical Sciences  
 I.K. Gujral Punjab Technical University  
 Kapurthala-144603 Pb. (India)

*[Handwritten mark]*  
 DEAN  
 R&D Deptt.  
 IKG Punjab Technical Univ.  
 Jalandhar  
*[Signatures]*

EDP S. No.: 600000055

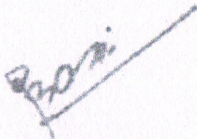
Regn. cum Roll No. 04.19.05

ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ  
Punjab Technical University  
Jalandhar

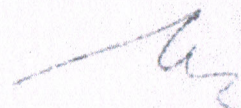


Doctor of Philosophy

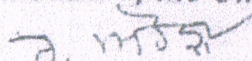
The Board of Governors of Punjab Technical University, Jalandhar upon the recommendation of the Academic council hereby confers on Mr./Ms Vandana Naithani Son/Daughter of Sh. B. D. Naithani Degree of Doctor of Philosophy in the faculty of ENVIRONMENTAL SCIENCE. The subject on which He/She presented the thesis for the Degree was " STUDY OF EFFECTS OF ORGANIC CONTENT AND MINERALS IN RETENTION OF PESTICIDE ON SOIL OF FEROZEPUR AND ITS ADJOINING AREAS "




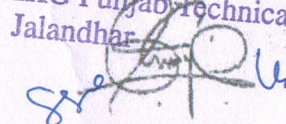
ਰਜਿਸਟਰਾਰ  
Registrar  
Jalandhar, 10/08/2013



Given under the seal of the University

  
ਵਾਈਸ-ਚਾਂਸਲਰ  
Vice-Chancellor

DEAN   
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

  
ਚਾਂਸਲਰ  
Chancellor

30

Roll No.: 133



Regd No.: 2002.CH/A.23

The Senate of  
**GURU NANAK DEV UNIVERSITY**

have conferred upon

ROOPA

son/daughter of

RAM BHAROSE

the degree of  
**Doctor of Philosophy**

in the faculty of

SCIENCES (CHEMISTRY)

Registrar

Vice-Chancellor

Chancellor

Amritsar : December 31, 2012

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

31



Roll No.: 71001400115

Regd No.: 98.B/A.27

The Senate of  
**GURU NANAK DEV UNIVERSITY**

have conferred upon

RESHU SAMAN

son/daughter of

RAMESH KUMAR

the degree of  
**Doctor of Philosophy**

in the faculty of

**SCIENCES (CHEMISTRY)**

*[Signature]*  
Professor (incharge (Examinations))

*[Signature]*  
Registrar

*[Signature]*  
Vice Chancellor

*[Signature]*  
Chancellor

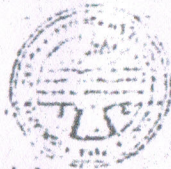
Amritsar: March 5, 2015

Head  
Department of  
Guru Nanak Dev University  
Kapurthala - 146001 Punjab (INDIA)

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*[Handwritten initials]*

32



Roll No . 3078

# Panjab University

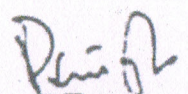


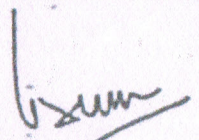
Doctor of Philosophy

( In the faculty of Science )

Certified that Maninder Kaur , Regd. No. 07-pfy-56 ,  
daughter of Shri Avtar Singh , and of  
the Punjab State , has obtained the degree of Doctor of Philosophy  
of this University on the result of the examination held in 2015 .

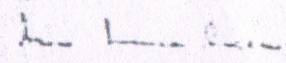
Given under the seal of the University

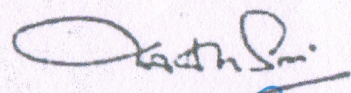
  
Controller of Examinations


  
Registrar

Chandigarh, March, 12, 2015



  
Vice Chancellor

  
Chancellor

  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

P. 4.3

34

Roll No.: 156



Regd No.: 98.RKJ/A.107

The Senate of  
**GURU NANAK DEV UNIVERSITY**

have conferred upon

EKTA ARORA

son/daughter of

RAJINDER KUMAR ARORA

the degree of  
**Doctor of Philosophy**

in the faculty of

ARTS & SOCIAL SCIENCES (JOURNALISM & MASS COMMUNICATION)

Registrar

Amritsar : March 5, 2013

Vice-Chancellor

Chancellor  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar



37

Serial No 548319

Registration No. SLIET/Ph.D./116/09

# Sant Longowal Institute of Engineering and Technology

(Deemed University, Under MHRD, Govt. of India)  
Longowal, Distt. Sangrur (Punjab) - 148106

Upon recommendation of the Senate hereby confers the degree of

**Doctor of Philosophy**

OR  
**HARPREET KAUR**

Daughter of Sh. GURJANT SINGH

**THESIS TITLE: HAAR WAVELET TECHNIQUE FOR SOLVING CERTAIN DIFFERENTIAL, INTEGRAL AND INTEGRO-DIFFERENTIAL EQUATIONS**

Given this day, the 25<sup>th</sup> March, 2015, under the seal of the Institute at Longowal in the Republic of India.


**संत लौंगोवाल अभियांत्रिकी एवं प्रौद्योगिकी संस्थान**

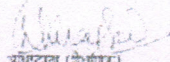
प्रोफेसर एवं अध्यक्ष  
**विद्या वाचस्पति**

की उपाधि एम.टे. दाग  
**हरजीत कौर**


पत्नी श्री गुरजंत सिंह  
की पटन बनना है।

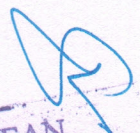
शोध प्रबन्ध शीर्षक : हार वेवलट टेक्नीक फॉर सॉल्विंग सर्टेन डिफरेंशियल, इंटीग्रल एंड इंटीग्रो-डिफरेंशियल इक्वेशन्स  
भारतीय कृषिसंस्थ के प्रेसिडेंट लौंगोवाल में आज, दिनांक 25 मार्च, 2015 को संस्थान के मुद्रा अंकित यह उपाधि दी गई।

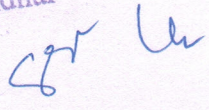
  
निदेशक एवं अध्यक्ष, असेंबली  
Director & Chairman, Senate

  
प्रेसिडेंट (अकादमिक)  
Dean (Academics)

  
रजिस्ट्रार  
Registrar

  
Head  
Department of Mathematical Sciences  
I.K. Gujral Punjab Technical University  
Kapurthala-144603 Pb. (India)

  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar



39

116

Serial No. 071083

Enrolment No. 027502

## भारतीय प्रौद्योगिकी संस्थान रुड़की

अभिषद् की अनुमति पर  
डॉक्टर ऑफ़ फ़िलॉसफ़ी  
की उपाधि

**रिंकू वालिया**

को, जिन्होंने इस उपाधि की अर्जापत्र हेतु विनियम विहित अपेक्षाओं को सन् 2007 में सफलतापूर्वक पूरा कर लिया है, एतद्वारा प्रदान किया है।

शोध प्रबन्ध शीर्षक: पॉलिशिंग ऑफ़ एफ्लुएन्ट फ्रॉम यूएसबीआर; ओआरपी ऐस ए मॉनिटोरिंग पैरामीटर  
भारतीय गणराज्य के अन्तर्गत रुड़की में आज, दिनांक 17 नवम्बर 2007, संस्थान की मुद्रा अंकित यह उपाधि दी गई।

### INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

On the recommendation of the Senate hereby confers the degree of

**Doctor of Philosophy**

upon

**RINKU WALIA**

who has successfully completed in the year 2007 the requirements prescribed under the regulations for the award of this degree

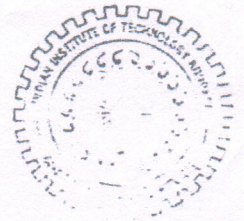
Thesis Title: POLISHING OF EFFLUENT FROM UASBR: ORP AS A MONITORING PARAMETER

Given this day, the 17<sup>th</sup> of November 2007, under the seal of the Institute at Roorkee in the Republic of India.

अध्यक्ष, अभिशासक परिषद्  
Chairman, Board of Governors

निदेशक एवं अध्यक्ष, अभिषद्  
Director & Chairman, Senate

कुलसचिव  
Registrar



DEPUTY DIRECTOR

IKGPTU CAMPUS

DEAN  
R&D Dept.

IKG Punjab Technical Univ.  
Jalandhar

ਆਈ. ਕੇ. ਗੁਜਰਾਲ ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ ਜਲੰਧਰ  
 I.K. Gujral Punjab Technical University Jalandhar  
 Formerly Punjab Technical University Jalandhar



Doctor of Philosophy

The Board of Governors of I.K. Gujral Punjab Technical University, Jalandhar upon the recommendation of the Academic council hereby confers on Mr./Ms. Neeraj Mohan Son/Daughter of Sh. Hans Raj Degree of Doctor of Philosophy in the faculty of COMPUTER SCIENCE AND ENGINEERING IN JULY-2016. The subject on which He/She presented the thesis for the Degree was " TRAFFIC GROOMING AND SURVIVABILITY IN OPTICAL NETWORKS. "

Given under the seal of the University

*[Signature]*

ਰਜਿਸਟਰਾਰ  
 Registrar  
 Jalandhar, 21-11-2017

*[Signature]*

ਵਾਈਸ-ਚਾਂਸਲਰ  
 Vice-Chancellor

*[Signature]*  
 Director  
 I.K. Gujral Punjab Technical University  
 Mohali Campus-1

*[Signature]*  
 DEAN  
 R&D Deptt.  
 IKG Punjab Technical Univ.  
 Jalandhar

*[Signature]*

ਚਾਂਸਲਰ  
 Chancellor

42

93/102

561/591

43

Serial No. 553746

Registration No. SLIET/Ph.D/44/08

**Sant Longowal Institute of Engineering and Technology**  
(Deemed University, Under MHRD, Govt. of India)  
**Longowal, Distt. Sangrur (Punjab) -148106**

Upon recommendation of the Senate hereby confers the degree of  
**Doctor of Philosophy**

on  
**DEEPAK KUMAR GOYAL**  
son of Sh. JAGDISH RAI GOYAL

**THIS TITLE : INVESTIGATIONS ON ROLE OF HIGH VELOCITY OXY-FUEL SPRAY COATINGS TO CONTROL SLURRY EROSION OF HYDRAULIC TURBINE MATERIALS**

Given this day, the 13<sup>th</sup> February, 2016, under the seal of the Institute at Longowal in the Republic of India.

**संत लौगोवाल अभियांत्रिकी एवं प्रौद्योगिकी संस्थान**

अभिषेक को अनुग्रह पर  
**विद्या वाचस्पति**  
को उपाधि एतद द्वारा  
**दीपक कुमार गोयल**  
सुपुत्र श्री जगदीश राय गोयल  
को प्रदान किया है।

शोध प्रबन्ध शीर्षक : इन्वेस्टीगेशंस ऑन रोल ऑफ हाई वेलासिटी ऑक्सी-फ्यूल स्प्रे कोटिंग्स टू कंट्रोल सल्टरी इरोशन ऑफ हाइड्रोलिक टरबाइन मटेरिअल्स

नेहरु फरवरी मन् दो हजार सोलह को भारतीय गणराज्य के अधीन लौगोवाल मे स्थित संस्थान को मुद्रा अंकित यह उपाधि प्रदान की गयी।

*Bansal*  
कल मधिय  
Registrar

*Dr. Jain*  
निदेशक एवं अध्यक्ष, अभिशासक परिषद  
Director & Chairman, Senate

*Dehany*  
अध्यक्ष, प्रबंधन मंडल  
Chairman, Board of Management



*Dehany*  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar  
Jalandhar



EXPLORE • INNOVATE • EXCEL

44

Student ID: 11309001

Serial No.: D150707

# PEC University of Technology Chandigarh

On recommendation of the Senate, the University hereby confers the degree of

*Doctor of Philosophy*

on

**Amoljit Singh Gill**

who has successfully completed in the year 2015 the requirements for the award of this degree

**Thesis Title: "Surface Alloying by Electrical Discharge Machining Process Using Powder Metallurgy Electrodes"**

Given this day, 17<sup>th</sup> of October, 2015 under the seal of University at Chandigarh

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*[Signature]*  
Registrar

*[Signature]*  
Director  
Department of Mechanical Engineering  
IKG.P.T.U.  
Jalandhar

*[Signature]*  
Chairman Board of Governors

Scanned by CamScanner

(45)

Student ID: 073010

Serial No.: D130621

# PEC University of Technology Chandigarh

On recommendation of the Senate, the University hereby confers the degree of

*Doctor of Philosophy*

on

**Jujhar Singh**

who has successfully completed in the year 2013 the requirements for the award of this degree

**Thesis Title: Investigation of Ultrasonic Assisted Electric Discharge Machining Performance.**

Given this day, 12th of October 2013 under the seal of University at Chandigarh

PEC University of Technology  
I.K.G. P.T.U. Kapurthala Campus  
Kapurthala

*Alhambra*  
Registrar

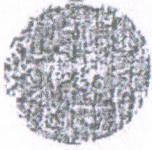
*[Signature]*  
Co-Chairperson Board of Management,  
Director & Chairman Senate

*[Signature]*  
Co-Chairperson Board of Management,  
Secretary Technical Education, UT, Chd.

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*[Signature]*

Scanned by CamScanner



# भारतीय प्रौद्योगिकी संस्थान रुड़की

अभिषेक की अनुशंसा पर  
डॉक्टर ऑफ़ फ़िलॉसफ़ी  
की उपाधि

## मनोज मित्तल

का, जिन्होंने इस उपाधि को अत्याप्ति हेतु विनियम विहित अपेक्षाओं को मनु 2012 में सफलतापूर्वक पूरा कर लिया है, एतद्द्वारा पदान करता है।  
शोध प्रबन्ध शीर्षक: वियर एण्ड क्रोजन स्टडीज़ ऑन प्लाजमा स्प्रेड AI2O3 रिइन्फोर्स्ड एचए कोटिंग्स  
भारतीय गणराज्य के अन्तर्गत रुड़की में आज, दिनांक 04 अगस्त 2012, संस्थान की मुद्रा अंकित यह उपाधि दी गई।

## INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

On the recommendation of the Senate hereby confers the degree of

### Doctor of Philosophy

upon

## MANOJ MITTAL

who has successfully completed in the year 2012 the requirements prescribed under the regulations for the award of this degree

Thesis Title: WEAR AND CORROSION STUDIES ON PLASMA SPRAYED AI2O3 REINFORCED HA COATINGS

Given this day, the 04<sup>th</sup> of August 2012, under the seal of the Institute at Roorkee in the Republic of India.

अध्यक्ष, अभिषेक परिषद  
Chairman, Board of Governors

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

निदेशक एवं अध्यक्ष, अभिषेक  
Director & Chairman, Senate

कुलसचिव  
Registrar



(47)

Serial No. - 0105

Roll No - 09405203



डा. बी. आर. अम्बेडकर राष्ट्रीय प्रौद्योगिकी संस्थान, जालन्धर

अभिषेक की अनुशंसा पर  
नित्य मानस्यति की रक्षासि इत्यद्वारा  
विवेक अग्रवाल  
को प्रदान करता है।

सोध-प्रबन्ध शीर्षक : "पैरामेट्रिक स्टी ऑन मशीनिंग की विशेषताएँ इन्कोनेल विथ वेडम"  
भारतीय जनराज्य के अन्तर्गत जालन्धर में आज दिनांक तीन अप्रैल 2016 को संस्थान की मुद्रा अंकित यह उपाधि दी गई।

**Dr B R AMBEDKAR NATIONAL INSTITUTE OF TECHNOLOGY, JALANDHAR**

Upon the recommendation of the Senate hereby confers the degree of  
**Doctor of Philosophy**

on  
**VIVEK AGGARWAL**

Thesis title: "PARAMETRIC STUDY ON MACHINING CHARACTERISTICS OF INCONEL WITH WEDM"  
Given this day, the Third of April, 2016, under the seal of the Institute at Jalandhar in the Republic of India.

अध्यक्ष, परिषद्  
Chairperson, Board of Governors

निदेशक एवं अध्यक्ष, परिषद्  
Director & Chairman, Senate

पंजीयन  
Registrar



DEAN  
R&D Deptt.  
IKG Punjab Technical Univt.  
Jalandhar

Mechanical Engineering  
P.T. I. Campus  
Jalandhar

(48)

Serial No. 151938

Enrolment No. 11923001



भारतीय प्रौद्योगिकी संस्थान रुड़की

अभिषद् की अनुसूता पर  
विद्या वाचस्पति  
की उपाधि

अमित बंसल

को, जिन्होंने इस उपाधि की अर्जापि हेतु विनियम विहित अपेक्षाओं को सन् 2015 में सफलतापूर्वक पूरा कर लिया है, पदपदग्रहण प्रदान करता है।  
सोध प्रबन्ध शीर्षक: फ्यूजन ज्वाइनिंग ऑफ एडवांस्ड मेटेरियल्स यूजिंग माइक्रोवेव हाइब्रिड हीटिंग  
भारतीय गणराज्य के अन्तर्गत रुड़की में आज, दिनांक 3 अक्टूबर 2015, संस्थान की मुद्रा अंकित यह उपाधि दी गई।

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

On the recommendation of the Senate hereby confers the degree of

Doctor of Philosophy

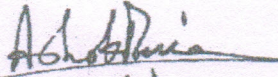
upon


AMIT BANSAL

who has successfully completed in the year 2015 the requirements prescribed under the regulations for the award of this degree

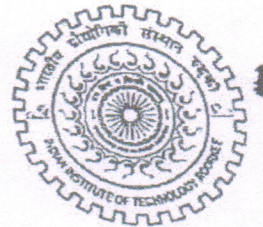
Thesis Title: FUSION JOINING OF ADVANCED MATERIALS USING MICROWAVE HYBRID HEATING


Given this day, the 3<sup>rd</sup> of October 2015, under the seal of the Institute at Roorkee in the Republic of India.

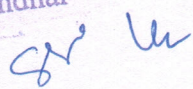
  
अध्यक्ष, अभिज्ञासक परिषद्  
Chairman, Board of Governors

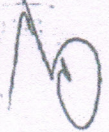
  
निदेशक एवं अध्यक्ष, अभिषद्  
Director & Chairman, Senate

  
प्रशासक  
कुलसचिव  
Registrar



  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar



  
SIR,  
Jalandhar





Registration No. 950906025

*IKG Punjab Technical University, Patiala*

(Declared as Deemed-to-be-University u/s 3 of the UGC Act, 1956)

## Doctor of Philosophy

Certified that Rakesh son of  
Shri Satpal & Smt. Laxmi Devi

has obtained the Degree of Doctor of Philosophy on his having successfully completed the prescribed requirements  
for the said degree in June 2015.

The title of his thesis is :

*Performance Analysis of Hybrid Passive Optical Networks*

Given this day under the seal of the University at Patiala, the Second day of November, Two Thousand and Fifteen.

*And*  
Registrar

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*Rakesh*  
Director

*Seni*

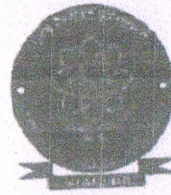
51

EDP S. No.: 600000093

02.39.09

Regn. cum Roll No. \_\_\_\_\_

ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ  
**Punjab Technical University**  
 Jalandhar



**Doctor of Philosophy**

The Board of Governors of Punjab Technical University, Jalandhar upon the recommendation of the Academic council hereby confers on Mr./Ms Amit Gupta Son/Daughter of Sh. Nuresh Gupta Degree of Doctor of Philosophy in the faculty of Electronics & Comm. Engineering. The subject on which He/She presented the thesis for the Degree was " Investigation on optical burst switching for next generation transport networks. "

ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ  
 Jalandhar

DEAN  
 R&D Deptt.  
 IKG Punjab Technical Univ.  
 Jalandhar

ਚਾਂਸਲਰ  
 Chancellor

Given under the seal of the University

ਰਜਿਸਟਰਾਰ  
 Registrar  
 Jalandhar, 12/08/2014

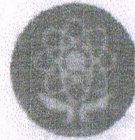
ਵਾਈਸ-ਚਾਂਸਲਰ  
 Vice-Chancellor

EDP S. No.: 600000141

15.07.09

Regn. cum Roll No.

ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ  
**Punjab Technical University**  
 Jalandhar



**Doctor of Philosophy**

The Board of Governors of Punjab Technical University, Jalandhar upon the recommendation of Academic council hereby confers on Mr./Ms Rakesh Kumar Son/Daughter of Sh. Ram Kishan Degree of Doctor of Philosophy in the faculty of INSTRUMENTATION & CONTROL ENGINEERING on November-2015. The subject on which He/She presented the thesis for the Degree was " A SECURED OPTIMIZED ROUTING SCHEME FOR MOBILE AD HOC NETWORKS USING ENCRYPTION TECHNIQUES. "

The Central Board of Secondary Education  
 New Delhi  
 Punjab Technical University  
 Jalandhar  
 The Central Board of Secondary Education  
 New Delhi

DEAN  
 R&D Deptt.  
 IKG Punjab Technical Univ.  
 Jalandhar  
 Chancellor

Given under the seal of the University

ਰਜਿਸਟਰਾਰ  
 Registrar

Jalandhar, 10-05-2016

ਵਾਈਸ-ਚਾਂਸਲਰ  
 Vice-Chancellor

53

Serial No.: } 14Ph.D.17  
क्रम संख्या : }

Registration No.: } 2K10-Ph.D.-EE-121  
पंजीकरण संख्या : }

**National Institute of Technology, Hamirpur (Himachal Pradesh)**

*Upon the recommendation of the Senate hereby confers the degree of*

*Doctor of Philosophy*

*in*

*Electrical Engineering*

*on*

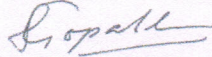
**NAVEEN KUMAR SHARMA**

THESIS TITLE: IMPACT OF RENEWABLE ENERGY SOURCES IN COMPETITIVE ELECTRICITY MARKET  
Given this day, the 17<sup>th</sup> of December 2014 under the seal of the Institute at Hamirpur in the Republic of India.

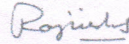
**राष्ट्रीय प्रौद्योगिकी संस्थान, हमीरपुर (हिमाचल प्रदेश)**

अभिषद की अनुशंसा पर  
विद्या वाचस्पति की उपाधि  
इलेक्ट्रिकल अभियांत्रिकी एतद्वारा  
**नवीन कुमार शर्मा**  
को प्रदान करता है।

शोधप्रबन्ध शीर्षक: इम्पैक्ट ऑफ रिन्युएबल एनर्जी सोर्सज इन कॉम्पेटिटिव इलेक्ट्रिसिटी मार्केट  
भारतीय गणराज्य के अन्तर्गत हमीरपुर, (हि.प्र.) में आज, दिनांक 17 दिसम्बर 2014 को संस्थान की मुद्रा अंकित यह उपाधि दी गई।



Chairman, Board of Governors  
अध्यक्ष, अभिशासक परिषद्


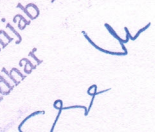


Director & Chairman, Senate  
निदेशक एवं अध्यक्ष, अभिषद्



Registrar  
कुलसचिव



  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar  


54



# राष्ट्रीय प्रौद्योगिकी संस्थान कुरुक्षेत्र

एल.एड. इलेक्ट्रिकल इंजीनियरिंग में  
डॉक्टर ऑफ फिलॉसफी  
की उपाधि अखिल गुप्ता

पुत्र-पुत्री श्री शेर जैंग गुप्ता को प्रदान करता है, जिसके शोध विषय का शीर्षक  
"पावर क्वालिटी इवैल्यूएशन ऑफ सोलर पीवी ग्रिड कनेक्टेड सिस्टम्स" है।  
यह मुद्रित उपाधि ४ मार्च, २०१७ को प्रदान की गई।

**National Institute of Technology  
Kurukshetra**

*hereby confers the degree of  
Doctor of Philosophy  
in Electrical Engineering  
on Akhil Gupta*

*son/daughter of Shri Sher Jung Gupta*

*the title of his/her thesis is "Power Quality Evaluation of Solar PV Grid Connected  
Systems"*

*Given this day, the 4<sup>th</sup> March of 2017 under the seal of the Institute.*

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*Signature*

*Signature*  
नियंत्रक  
Registrar

*Signature*  
निदेशक  
Director

*Signature*  
अध्यक्ष, विद्यार्थी परिषद  
Chairman, Board of Governors

56

Serial No. 0053



Roll No. 07403002

डा. बी. आर. अम्बेडकर राष्ट्रीय प्रौद्योगिकी संस्थान, जालन्धर

अभियुक्त की अनुशंसा पर

विद्या वाचस्पति की उपाधि एतद्वारा

रमन कुमार

को प्रदान करता है।

शोध-प्रबन्ध शीर्षक : "इन्हांसड थ्रेशहोल्ड प्रॉक्सी सिग्नेचर रिफिंग बेस्ड ऑन आरएसए फॉर नोन सिग्नेर्स"  
भारतीय गणराज्य के अन्तर्गत जालन्धर में आज दिनांक चार अप्रैल 2015 को संस्थान की मुद्रा अंकित यह उपाधि दी गई।

**Dr B R AMBEDKAR NATIONAL INSTITUTE OF TECHNOLOGY, JALANDHAR**

Upon the recommendation of the Senate hereby confers the degree of

**DOCTOR OF PHILOSOPHY**

on

**RAMAN KUMAR**

*Thesis title: "ENHANCED THRESHOLD PROXY SIGNATURE SCHEME BASED ON RSA FOR KNOWN SIGNERS"*

Given this day, the Fourth of April, 2015, under the seal of the Institute at Jalandhar in the Republic of India.

अध्यक्ष, अभिशासक परिषद्  
Chairperson, Board of Governors

निदेशक एवं अध्यक्ष, अभियुक्त  
Director & Chairman, Senate

कुलसचिव  
Registrar



DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

57

58

Roll No. : 710017000183  
Regd No. : 99.FT/A.5

The Senate of  
**GURUNANAK DEV UNIVERSITY**

have conferred upon

SHINDERIT SINGH


son/daughter of

KAPIL SINGH


the degree of  
**Doctor of Philosophy**


in the faculty of

SCIENCE (Food Technology)

  
Professor in Charge (Examinations)

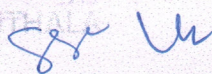
  
Registrar

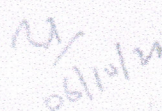
  
Vice-Chancellor

  
Chancellor

Approved & Sent to Registrar, G.D.U.

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar







85/2021

58

# MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY

Jawahar Lal Nehru Marg, Jaipur – 302017 (Rajasthan) India

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर

जवाहर लाल नेहरू मार्ग, जयपुर-302017 (राजस्थान) भारत

Website: www.mnit.ac.in

DOCTOR OF PHILOSOPHY (Ph.D.)

## Provisional Degree Certificate

This is to certify that

Name	Mr. MD. Fuzail Jawaid
ID No	2014RAR9026
S/o	Mr. Jawaid Qayyum
Topic	Environment Responsive Development Regulations for Residential Developments in Jaipur City
Under the Supervision	Dr. Satish Pipralia Dr. Ashwani Kumar
Department	: Architecture and Planning
Date of Viva-Voce	: March 26, 2021

after having fulfilled all the Academic requirements, is declared eligible for the award of the Degree of Doctor of Philosophy(Ph.D.).

*RA*  
Prepared By

Date: 05/04/2021

*Reeta Singh*  
Deputy Registrar  
DEPUTY REGISTRAR (ACADEMIC)  
Malaviya National Institute of Technology Jaipur  
J.L.N. Marg, Jaipur - 302 017  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.

Note: The Provisional Degree Certificate is valid till the Degree is awarded.

*U. Singh*

*SSR*

59

Roll No. 912

# Punjab University

## Doctor of Philosophy

(In the Faculty of Business Management & Commerce)

Certified that Sanjeeb Kumar, Regd. No. 92-as-267, son of Shri Diwan Chand, and of Punjab State, has obtained the degree of Doctor of Philosophy of this University on the result of the examination held in 2006.

Given under the seal of the University

*Sodh*

Controller of Examinations

*Sanjeeb Kumar*

Registrar

Chandigarh, April 12, 2006

*R. S. S. S.*  
VICE-CHANCELLOR

*log*  
12/04

CHANCELLOR

*[Signature]*  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

Head *Sanjeeb*  
Department of Management  
I.K. Gujral Punjab Technical University  
141 603

*STFB*



Roll No.: 125

Regd No.: 97. H/A-327

The Senate of  
**GURU NANAK DEV UNIVERSITY**

have conferred upon

KAPIL GUPTA

son/delighter of

TOGINDER PAL GUPTA

the degree of  
**Doctor of Philosophy**

in the faculty of

ECONOMICS & BUSINESS (COMMERCE)

*R. Singh*

Registrar

*A. Bhainra*

Vice-Chancellor

*S. R. Singh*

Chancellor

Amritsar: June 19, 2009

*Registrar*

*Jh*  
Head  
Department of Management  
I.K. Gujral Punjab Technical University  
Kapurthala-144 603

*for*

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*[Signature]*

*for u*

*60*

पंजीकरण संख्या  
Reg. No.

S/41

क्रमांक  
S. No.

0490043

19

# बीकानेर विश्वविद्यालय, बीकानेर



प्रमाणित किया जाता है कि

राजेश कुमार नरुला

को विज्ञान संकाय में "सामान्यीकृत एम.एम.डी. व एम.डी.एस. कोडों की शत व अज्ञात त्रुटियों की सीमाओं और उनकी उपयोगिता पर अध्ययन"

शीर्षक पर शोध प्रबन्ध दिनांक 03.12.2007 को स्वीकृत होने के उपरान्त

## डॉक्टर ऑफ़ फ़िलॉसफ़ि (गणित)

की उपाधि प्रदान की जाती है।

यह उपाधि विश्वविद्यालय को मुद्रा तथा कुलपति के हस्ताक्षर से निर्गमित की जाती है।

### UNIVERSITY OF BIKANER, BIKANER

Certified that the degree of

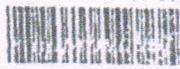
## Doctor of Philosophy (Mathematics)

in the Faculty of Science is conferred on

**Rajesh Kumar Narula**

after approval of the thesis on 03.12.2007 on the title "On study of generalized bounds of detected and undetected errors of MMD and MDS codes and their applications"

This degree is issued with the seal of the University and the Signature of the Vice Chancellor.



दिनांक  
Date

29.09.2011

DEAN

IKG Punjab  
Jalandhar

SKK

कुलपति  
Vice Chancellor

62



Roll No. 3410

16

# Panjab University

## Doctor of Philosophy

( In the faculty of Science )



Certified that Gurjinder Singh, Regd. No. 99-gnm-84, son of Shri. Piara Singh, and of the Punjab State, has obtained the degree of Doctor of Philosophy of this University on the result of the examination held in 2016.

Given under the seal of the University

*P Singh*

Controller of Examinations

*[Signature]*

Registrar

Chandigarh, May. 24, 2016



*[Signature]*

Head  
Department of Mathematical Sciences  
I.K. Gujral Punjab Technical University  
Kapurthala-144603 P.B. (India)

*[Signature]*

Vice Chancellor

*[Signature]*

Chancellor

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*[Signature]*

63

Roll No.: 50



Regd No.: 94.Zoo/A-3

The Senate of  
**GURU NANAK DEV UNIVERSITY**

have conferred upon

CHANDER PARKASH

son/daughter of

DES RAJ

the degree of

**Doctor of Philosophy**

in the faculty of

LIFE SCIENCES (ZOOLOGY)

R. Sharma  
Registrar

J. R. Singh  
Vice-Chancellor

S. Singh  
Chancellor

Amritsar: October 4, 2008

Head  
Department of  
IKG Punjab Technical Univ.  
Kaurthala - 141001 Punjab (INDIA)

[Signature]  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar  
[Signature]

64

# Punjabi University Patiala



(Established under Punjab Act No. 35 of 1961)

## Doctor of Philosophy

Certified that Rupesh Kumar, son/daughter of Shri Surender Kumar and Smt. Santosh Rani, of the Punjab State, has this day been admitted by the Senate in the degree of

### Doctor of Philosophy in

Synthesis and Photochemical Transformations of

Some Novel Benzo- $\gamma$ -Pyrones

in the faculty of

Physical Sciences

Given under the seal of the University.

*Rajinder*  
REGISTRAR  
PATIALA

April 26, 2019

*[Signature]*  
DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*[Signature]*  
CHANCELLOR

*[Signature]*  
VICE-CHANCELLOR

*[Signature]*  
Department of Chemical Sciences  
I.K. Gujral Punjab Technical University  
Kapurthala

65

Roll No . 2442

# Punjab University

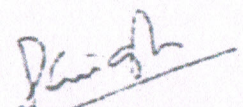


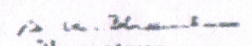
Doctor of Philosophy

( In the faculty of Science )

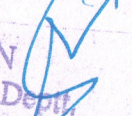
Certified that *Varinderjit Singh* , Regd. No. *2002-gl-188* , and of  
 son of *Shri Balwant Singh* ,  
 the *Punjab State* , has obtained the degree of Doctor of Philosophy  
 of this University on the result of the examination held in *2013* .

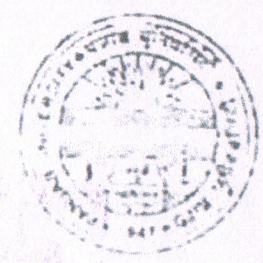
Given under the seal of the University

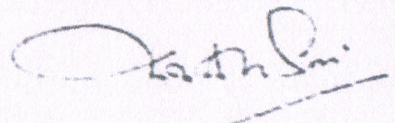
  
 Controller of Examinations


  
 Registrar

Chandigarh, February.

  
 DEAN  
 R&D Deptt.  
 IKG Punjab Technical Univ.  
 Jalandhar



Vice Chancellor  
  
 Chancellor

  
 Head  
 Department of Physical Sciences  
 I.K.G. Punjab Technical University  
 Main Campus

66

Roll No.: 61



Regd No.: 95 475/A-40

The Senate of  
**GURU NANAK DEV UNIVERSITY**

have conferred upon

SARJIT SINGH

son/daughter of

NACHATTAR SINGH MANN

the degree of  
**Doctor of Philosophy**

in the faculty of

LANGUAGES (PUNJABI)

R. Bains

Registrar

J. R. Singh

Vice-Chancellor

S. R. Singh

Chancellor

Amritsar : December 1, 2008

S. R. Singh  
Faculty In-charge  
Department of Humanities, Languages  
and Cultural Studies  
IKG Punjab Technical University, Jalandhar

**DEAN**  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

S. R. Singh W

86

EDP S. No.: 600000111

Regn. cum Roll No.

1006017

ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ  
**Punjab Technical University**  
 Jalandhar



**Doctor of Philosophy**

The Board of Governors of Punjab Technical University, Jalandhar upon the recommendation of the Academic council hereby confers on Mr./Ms Sukhminderbir Singh Kalsi Son/Daughter of Sh. Mohinder Singh Degree of Doctor of Philosophy in the faculty of Mechanical Engineering. The subject on which He/She presented the thesis for the Degree was " Hot Corrosion Study of Cold Spray Coatings in Medical Waste, Incineration Environment. "

ਰਜਿਸਟਰਾਰ  
 Registrar  
 Jalandhar, 12/09/2014

Given under the seal of the University

ਵਾਈਸ-ਚਾਂਸਲਰ  
 Vice-Chancellor

I. K. Gujral Punjab Technical  
 University Amritsar Campus,  
 Inside Guru Nanak Dev Engineering College  
 Near O.M.S. Post, Amritsar,  
 Ph:- 0183-2466004

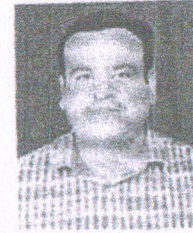
DEAN  
 RAJINDER  
 J. Chancellor

IKG Punjab Technical Univ.

69



Roll No . 3334



# Punjab University

## Doctor of Philosophy

( In the faculty of Engineering & Technology )

Certified that Vipul Sharma , Regd. No. 08-uit-652 ,  
 son of Shri Suresh Kumar , and of  
 the Punjab State , has obtained the degree of Doctor of Philosophy  
 of this University on the result of the examination held in 2016 .

Given under the seal of the University

*R Singh*  
 Controller of Examinations

*[Signature]*  
 Registrar

Chandigarh, March, 1, 2016



I. K. Gujral Punjab Technical  
 University Amritsar Campus,  
 Inside Govt. Polytechnic College,  
 Near Chhara, Amritsar, Punjab, India  
 Ph: 0183-2450004, 7667364858

*[Signature]*  
 Vice Chancellor

*[Signature]*

Chancellor  
 R&D Deptt.  
 IKG Punjab Technical Univ.  
 Jalandhar

*[Signature]*

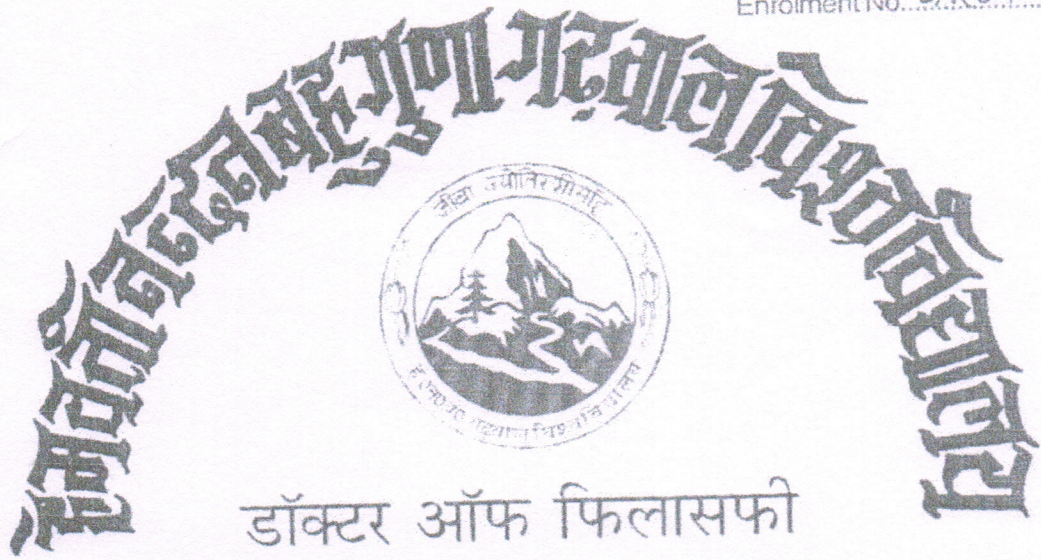
59

70

60375

नामांकन संख्या... जी.आर. 0200916

Enrolment No... G.R.090017



### डॉक्टर ऑफ फिलासफी

प्रमाणित किया जाता है कि विक्रमजीत सिंह को  
 गणित में इस विश्वविद्यालय की

डॉक्टर ऑफ फिलासफी की उपाधि वर्ष 2013 में प्रदान की गयी।

शोध प्रबन्ध का शीर्षक "इफेक्ट ऑफ बैकलॉगिंग ऑन सभ इन्वेन्टरी सिस्टम्स"

### HEMWATI NANDAN BAHUGUNA GARHWAL UNIVERSITY

#### Doctor of Philosophy

This is to certify that VIKRAMJEET SINGH has  
 been awarded the Degree of Doctor of Philosophy in MATHEMATICS  
 of this University in the year 2013

Title of Thesis "EFFECT OF BACKLOGGING ON SOME INVENTORY  
 SYSTEMS"

हेमवती नन्दन बहुगुणा गढ़वाल विश्वविद्यालय, श्रीनगर (गढ़वाल)  
 H.N.BAHUGUNA GARHWAL UNIVERSITY, Srinagar (Garhwal)

*[Signature]*  
 कुलपति  
 Vice Chancellor

दिनांक  
 Dated 23 JAN 2016

*[Signature]*  
 DEAN  
 R&D Deptt.  
 IKG Punjab Technical Univ.  
 Jalandhar

*[Signature]*  
 DEAN  
 R&D Deptt.  
 IKG Punjab Technical Univ.

# भारतीय प्रौद्योगिकी संस्थान दिल्ली

अभिषद की अनुशंसा पर

विद्या वाचस्पति

की उपाधि एतद्वारा

सुनील कुमार महला

को प्रदान करता है।

शोध-प्रबन्ध शीर्षक : स्टडीज़ ऑन यूटिलाइजेशन ऑफ सीएनजी ऐन्ड बायोडीज़ल ब्लेन्ड इन ए कॅम्प्रेशन इग्निशन इंजन यूजिंग इग्जॉस्ट गैस रिसर्क्यूलेशन।

भारतीय गणराज्य के अन्तर्गत दिल्ली में आज, दिनांक 9 अगस्त 2008 को संस्थान को मुद्रा अंकित यह उपाधि दी गई।

## Indian Institute of Technology Delhi

Upon the recommendation of the Senate hereby confers the degree of

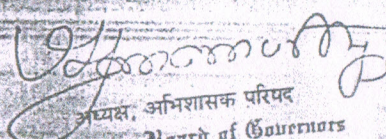
Doctor of Philosophy

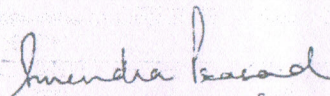
on

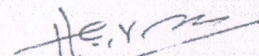
SUNIL KUMAR MAHLA

Thesis title : STUDIES ON UTILIZATION OF CNG AND BIODIESEL BLEND IN A COMPRESSION IGNITION ENGINE USING EXHAUST GAS RECIRCULATION.

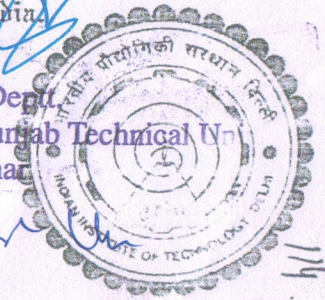
Given this day, the 9<sup>th</sup> of August 2008, under the seal of the Institute at Delhi in the Republic of India

  
अध्यक्ष, अभिशासक परिषद  
Chairman, Board of Governors

  
निदेशक एवं अध्यक्ष, अभिषद  
Director & Chairman, Senate

  
कुलसचिव  
Registrar

DEAN  
R&D Dept.  
IKG Punjab Technical Univ  
Jalandhar



DEPUTY DIRECTOR

IKGPTU CAMPUS JALANDHAR

12

115

Sl.No.:IPUCONV-X/0000047

Enrollment No.: 90070091110



गुरु गोबिन्द सिंह इन्द्रप्रस्थ विश्वविद्यालय  
**GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY**

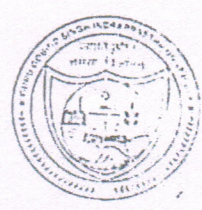


विद्या-वाचस्पति

प्रमाणित किया जाता है कि यूनिवर्सिटी स्कूल ऑफ बेसिक एंड एप्लाइड साइंस में पंजीकृत कुलविंदर सिंह सुपुत्र हरगजन सिंह को गणित विषय में इस विश्वविद्यालय की विद्या-वाचस्पति की उपाधि 15.10.2014 को प्रदान की गई।



इनके शोध प्रबंध का शीर्षक है "मैथमेटिकल मॉडलिंग, मल्टी फ्रैक्टल एंड वेवलेट एनालिसिस ऑफ वार्टर पैरामीटर्स"



Doctor of Philosophy

This is to certify that Kulwinder Singh Son of Harbhajan Singh registered in University School of Basic and Applied Science has been awarded the degree of Doctor of Philosophy of this University in the subject of Mathematics on 15.10.2014.

Title of the thesis is "Mathematical Modeling, Multifractal and Wavelet Analysis of Water Parameters"

*Travin Chandra*

परीक्षा नियंत्रक  
Controller of Examinations



Date of Convocation : 26.03.2015  
दिल्ली (भारत) / Delhi (India)

*Atyagi*

कुलपति  
Vice Chancellor

*PK*

DEPUTY DIRECTOR  
IKGPTU CAMPUS JALANDHAR

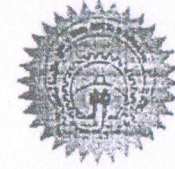
*AD*

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

*Shu*



( 73 )  
मौलाना आज़ाद राष्ट्रीय प्रौद्योगिकी संस्थान, भोपाल



मध्य प्रदेश, भारत  
अभिषद् की अनुशंसा पर  
ब्रजेश बाकरिया

को  
संगणक अनुप्रयोजन संकाय  
में

Scholar No. 123206103

इफिशिएन्ट मॉडल्स फॉर इंटरेस्टिंग पैटर्न्स एक्सट्रैक्शन एन्ड यूज़र बिहेवियर एनालिसिस फ्रॉम वेबलॉग डेटा

डॉक्टर ऑफ फिलॉसफी

की उपाधि उनके द्वारा इस उपाधि की अवाप्ती हेतु विनियम विहित अहर्ताओं को  
सफलतापूर्वक वर्ष सितम्बर 2016 में पूर्ण करने पर एतद् द्वारा प्रदान करता है।  
भारतीय गणराज्य के अंतर्गत भोपाल में आज दिनांक 20 सितम्बर 2016 को संस्थान की मुद्रा सहित दी गई।

MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY, BHOPAL

Madhya Pradesh, India

Upon recommendation of the Senate, hereby confers the degree of

Doctor of Philosophy

in

Faculty of Computer Applications

on

Brijesh Bakariya

For his /her research work entitled

Efficient Models for Interesting Patterns Extraction and User Behaviour Analysis from Weblog Data

who has successfully completed the requirements prescribed under the regulations

for the award of this Degree in September 2016

Given this day, the 20<sup>th</sup> September 2016 under the seal of the Institute at Bhopal in the Republic of India.

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar  
निदेशक एवं अध्यक्ष, अभिषद्  
अध्यक्षक एवं अध्यक्ष, अभिषद्  
Director & Chairman, Senate



अध्यक्ष, शासी निकाय  
Chairperson, Board of Governors

DEPUTY DIRECTOR

IKGPTU CAMPUS JALANDHAR

DEAN  
R&D Deptt.  
IKG Punjab Technical Univ.  
Jalandhar

EDP S. No.: 600000128

1006023

Regn. cum Roll No.

ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ  
**Punjab Technical University**

Jalandhar




**Doctor of Philosophy**


The Board of Governors of Punjab Technical University, Jalandhar upon the recommendation of the Academic council hereby confers on Mr./Ms Amit Handa Son/Daughter of Sh. Tilak Raj Handa Degree of Doctor of Philosophy in the faculty of MECHANICAL ENGINEERING in May-2015. The subject on which He/She presented the thesis for the Degree was " STUDIES OF MECHANICAL PROPERTIES AND HOT CORROSION BEHAVIOUR OF FRICTION WELDED DISSIMILAR STEELS. "

Given under the seal of the University

  
ਰਜਿਸਟਰਾਰ  
Registrar

Jalandhar, 10-05-2016

  
ਵਾਈਸ-ਚਾਂਸਲਰ  
Vice-Chancellor

  
DEAN  
ਚਾਂਸਲਰ & D Deptt  
Chancellor  
IKG Punjab Technical Univ  
Jalandhar  
DEPT. DIRECTOR  
IKGPTU CAMPUS

**PUNJABI UNIVERSITY PATIALA**  
(Established Under Punjab Act No. 35 of 1961)  
**Ph.D. GAZETTE NOTIFICATION**

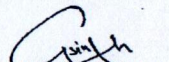
No. Ph.D./1111

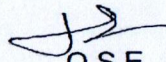
The following candidates of the **FACULTY OF ENGINEERING & TECHNOLOGY** have been awarded the Degree of **Doctor of Philosophy** on the recommendations made by the Research Award Committee in its meeting held on **18.02.2020**(deemed date of the Award of Ph.D. Degree):

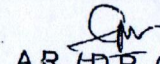
Sr. No.	Roll No.	Regd. No.	Name of the Candidate/Father /Mother	Subject	Title of the Thesis	Deptt.	Supervisor / Co-Supervisor	Candidate's Address	State
1	4289	7141-15-1151	RAJEEV KUMAR BEDI JAGJIT RAI BEDI RAKSHA BEDI	COMPUTER ENGINEERING	A NOVEL APPROACH FOR MULTI CLOUD STORAGE FOR MOBILE DEVICES	COMPUTER SCIENCE & ENGINEERING	DR. JASWINDER SINGH ASSOCIATE PROF. DEPT. OF COMPUTER SCI. & ENGG. PUNJABI UNIVERSITY, PATIALA CO-SUPERVISOR, DR. S.K. GUPTA, PROF. DEPT OF COMPUTER SC. & ENGG., BEANT COLLEGE OF ENGG. & . TECH., GURDASPUR.	H. NO. B-III, 139/1, GURU NANAK NAGAR BHULLAR ROAD, BATALA-143505	PUNJAB
2	4290	UCE(P)2009-602	GURPREET KAUR LACHHMAN SINGH MANJEET KAUR	ELECTRONICS & COMMUNICATION ENGINEERING	DEVELOPMENT OF AN IMPROVED EQUALIZATION TECHNIQUE FOR THE PERFORMANCE ENHANCEMENT OF COHERENT OPTICAL SYSTEMS	ELECTRONICS & COMMUNICATION ENGINEERING	DR. GURMEET KAUR, DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING, PUNJABI UNIVERSITY, PATIALA	OPP HIRA ENCLAVE, BOUAN GATE NABHA, PATIALA-147001	PUNJAB

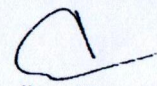
PATIALA

DATED: 24/02/2020

  
SR. ASSTT.

  
O.S.E

  
A.R. D.R. (Examination)

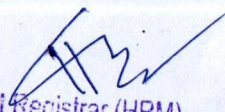
  
Controller (Examination)



Copy of the above is forwarded to:

1. THE EDITOR, CSIR, DIRECTORATE, OLD MILL ROAD, NEW DELHI.
2. THE REGISTRARS OF ALL THE INDIAN UNIVERSITIES.
3. THE SECRETARY, UGC, RAFI MARG, NEW DELHI.
4. THE SECRETARY, ASSOCIATION OF INDIAN UNIVERSITIES, AIU HOUSE, 16, COMRADE INDRAJIT GUPTA MARG (KOTLAMARG), NEW DELHI-110002.
5. THE DIRECTOR, DIRECTORATE OF SOCIAL SCIENCES DOCUMENTATION CENTRE, 36, ICS SR, FERROZESHAH ROAD, NEW DELHI.
6. THE HEAD OF DEPARTMENT, PUNJABI UNIVERSITY, PATIALA - 147002.
7. SUPERVISOR/CO-SUPERVISOR OF THE CANDIDATE
8. THE SUPERINTENDENT, SECRECY, RESEARCH THESIS EVALUATION CELL AND PMU CELL PUNJABI UNIVERSITY, PATIALA.
9. THE CHIEF LIBRARIAN, PUNJABI UNIVERSITY, PATIALA.

PATIALA

DATED: 24/02/2020

  
Assistant Registrar (HRM)  
Gujral Punjab Technical University  
Jalandhar

  
SUPERINTENDENT (EXAMINATION)  




योजना तथा वास्तुकला विद्यालय, नई दिल्ली

अभिषद् की अनुशंसा पर

विद्या वाचस्पति

की उपाधि

ज्योति सिंह

को, जिन्होंने इस उपाधि की अर्जा हेतु अपेक्षाओं को सन् 2023 में सफलतापूर्वक पूर्ण कर लिया है, एतद्वारा प्रदान करता है। आपने यह उपाधि "अंतिम डिजाइन उत्पाद में अवधारणा का परिवर्तन : वास्तुकला

डिजाइन स्टूडियो में अवधारणा विकास का एक विस्तृत अध्ययन" विषय में उर्नाष की है।

भारतीय गणराज्य में नई दिल्ली स्थित विद्यालय की मुद्रांकित यह उपाधि

आज दिनांक 17 नवम्बर 2023 को प्रदान की गई।

School of Planning and Architecture, New Delhi  
upon recommendation of the Senate hereby confers the degree of  
Doctor of Philosophy

on

Jyoti Singh

who has successfully completed the requirements prescribed  
for this degree in the year 2023 on the topic "Transformation of Concept Into Final  
Design Product : A Detailed Study of Concept Development In Architecture Design  
Studio"

Awarded on this day, the 17 November 2023,

under the seal of the School at New Delhi in the Republic of India.

संकायक (अकादमिक)  
Dean (Academic)

नियंत्रक (प्रभारी)  
Registrar (i/c)

अध्यक्ष, अभिषद् एवं निदेशक  
Chairperson-Senate & Director



संसद के अधिनियम के तहत/Under an Act of Parliament (शिक्षा मंत्रालय, भारत सरकार)  
An Institution of National Importance under an Act of Parliament (Ministry of Education, Government of India)



नामांकन नं./Enrolment No. SPA/NS/Ph.D/175/2017-18

क्रमांक/Serial No. 2023/SPA/ARCH/PhD/009

सहायक कुलपति/Assistant Registrar

योजना तथा वास्तुकला विद्यालय

School of Planning and Architecture

संसद के अधिनियम के तहत/Under an Act of Parliament

राष्ट्रीय महत्व का संस्थान/An Institution of National Importance

शिक्षा मंत्रालय, भारत सरकार

Ministry of Education, Government of India

4 ब्लॉक, इन्दिरा प्रस्थ एस्टेट, नई दिल्ली-110002

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29/8/2024



MARTIN-LUTHER-UNIVERSITÄT  
HALLE-WITTENBERG

Naturwissenschaftliche Fakultät II  
Chemie, Physik und Mathematik

Unter dem Rektorat des Professors für Kirchengeschichte  
Dr. theol. Udo Sträter  
verleiht die Naturwissenschaftliche Fakultät II - Chemie, Physik und Mathematik  
(Institut für Physik)

**Herrn Shashi Bahl**  
geboren am 20. Oktober 1977 in Gurdaspur (India)

auf Grund der Dissertation

**Numerical Simulation and Experimental Investigations for  
Mechanical Scribing of Cu(In, Ga)Se<sub>2</sub> Thin-Film Solar Cells**

und der öffentlichen Verteidigung  
den akademischen Grad

**Doktor der Ingenieurwissenschaften (Dr.-Ing.)**

Für die Gesamtleistung wird das Prädikat

**cum laude**

erteilt.

Halle (Saale), 2. März 2016

Der Rektor  
Prof. Dr. theol. U. Sträter

06/02/2026  
Deputy Registrar (HRM)  
IK Gujral Punjab Technical University  
Jalandhar

Der Dekan der Fakultät  
Prof. Dr. rer. nat. habil. W. Binder



MARTIN-LUTHER-UNIVERSITÄT  
HALLE-WITTENBERG

Naturwissenschaftliche Fakultät II  
Institut für Physik

363

Martin-Luther-Universität Halle, Physik, Von-Danckelmann-Platz 3, 06120 Halle

The Registrar  
IKG Punjab Technical University Jalandhar  
Kapurthala- 144601, Punjab, India

Prof. Dr. Georg Woltersdorf  
Fachgruppe Optik  
Von-Danckelmann-Platz 3  
06120 Halle/Saale

Tel: +49.345.55.25300  
Fax: +49.345.55.27221  
Email: georg.woltersdorf@physik.uni-halle.de  
Web: www.physik.uni-halle.de/fachgruppen/optik

Ihr Zeichen

Ihr Schreiben vom

Unser Zeichen

Datum

11.01.2016

### Recommendation for Extension of Leave of Mr. Shashi Bahl

To whom it may concern

Mr. Shashi Bahl from India is pursuing Ph.D. from Martin Luther University, Germany since 16.08.2012. As the chair of the Ph.D.-examination committee of Mr. Shashi Bahl, I wish to inform you that he has successfully submitted his Ph.D. thesis to the University and presently his thesis is under review. We are waiting for the review reports from his PhD Examiners. At the moment, it seems that the date of his PhD Defense may lie somewhere between 10.02.2016 to 15.03.2016. Therefore, I recommend that his leave should be extended for one month that is until 15.03.2016.

This would help Mr. Shashi Bahl to successfully finish his PhD Degree.

Kind Regards,

Prof. Dr. Georg Woltersdorf

**Martin-Luther-Universität  
Halle-Wittenberg**  
Institut für Physik  
Optik und zeitaufgelöste Spektroskopie  
Prof. Dr. Georg Woltersdorf  
Von-Danckelmann-Platz 3  
06120 Halle (Saale)  
Germany



Faculty of Natural Sciences II –  
Chemistry, Physics und Mathematics

Chairman of the Doctorate Committee  
Prof. Dr. Wolfgang H. Binder

PhD office  
c/o Studiendekanat  
Dr. Kerstin Brennecke

Address:  
Von-Danckelmann-Platz 3  
06120 Halle/Saale  
Germany

Tel. +49(0)345 55-25600/1/2  
Fax +49(0)345 55-27223

Halle, 11<sup>th</sup> March 2016

Martin-Luther-Universität Halle-Wittenberg, D-06099 Halle, Germany

**Preliminary confirmation**

**Mr. Shashi Bahl**, born 20 October 1977

has successfully defended his dissertation with the oral exam on 02 March 2016 in accordance with § 11 of the valid doctorate regulations. The topic of the dissertation is:

**"Numerical Simulation and Experimental Investigations for Mechanical Scribing of Cu(In, Ga)Se<sub>2</sub> Thin-Film Solar Cells"**

The process was evaluated with the final grade

**cum laude**

This confirmation is valid for one year – the procedure for conferring a doctorate is completed after publication of the dissertation and handing over the certificate.

Prof. Dr. W. Binder  
Dean of the Faculty of Natural Sciences II



**DESH BHAGAT UNIVERSITY**

Amloh Road, Mandi Gobindgarh (Punjab)

Ref. No. DBU/RC/672

Dated:-05/10/2020

**Compliance Certificate**

It is verified that Dr. Dinesh Gupta S/o Sh. Ashok Gupta, who was a Ph.D. student in the Department/Faculty of Computer Science & Engineering bearing Roll No. 15320155001, Desh Bhagat University, Mandi Gobindgarh, Punjab has been awarded Ph.D. degree and has complied with UGC Regulations 2016 as per the following criteria:

1. Candidate has completed Coursework including Research Methodology paper.
2. Ph.D. degree of the candidate awarded in regular mode only.
3. Evaluation of Ph.D. thesis by at least two external examiners.
4. Open Ph.D. viva voce of the candidate has been conducted.
5. Candidate has published two research papers from his Ph.D. work in refereed journals.
6. Candidate has made two presentations in seminars based on his Ph.D. work in the concerned department.

*Dr. I.S. Sethi*  
Dr. I.S. Sethi 05.10.2020  
Director Research

Serial No. 121592



## भारतीय प्रौद्योगिकी संस्थान रुड़की

अभिषद् की अनुशंसा पर  
डॉक्टर ऑफ़ फिलॉसफी  
की उपाधि

**प्रभकिरण कौर**

को, जिन्होंने इस उपाधि की अर्जापि हेतु विनियम विहित अपेक्षाओं को सन् 2012 में सफलतापूर्वक पूरा कर लिया है, एतद्वारा प्रदान करता है।  
शोध प्रबन्ध शीर्षक: स्टडीज आन इलेक्ट्रो-मैग्नेटिकली स्टिर कास्ट AI-SI एलॉयस  
भारतीय गणराज्य के अन्तर्गत रुड़की में आज, दिनांक 04 अगस्त 2012, संस्थान की मुद्रा अंकित यह उपाधि दी गई।

## INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

On the recommendation of the Senate hereby confers the degree of

**Doctor of Philosophy**

upon

**PRABHKIRAN KAUR**

who has successfully completed in the year 2012 the requirements prescribed under the regulations for the award of this degree

Thesis Title: STUDIES ON ELECTRO-MAGNETICALLY STIR CAST AI-SI ALLOYS

Given this day, the 04<sup>th</sup> of August 2012, under the seal of the Institute at Roorkee in the Republic of India.

*[Signature]*

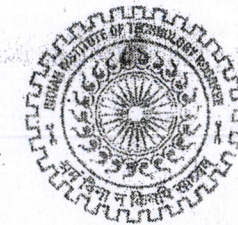
अध्यक्ष, अभिशासक परिषद्  
Chairman, Board of Governors

*[Signature]*

निदेशक एवं अध्यक्ष, अभिषद्  
Director & Chairman, Senate

*[Signature]*

कुलसचिव  
Registrar



*[Signature]* 26/02/2026  
Deputy Registrar (HRM)  
IK Gujral Punjab Technical University  
Jalandhar



-150-

भारतीय प्रौद्योगिकी संस्थान रूड़की  
रूड़की - 247667, हरिद्वार (उत्तराखण्ड), भारत  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE  
Roorkee - 247667, Haridwar (Uttarakhand), India  
Website : www.iitr.ac.in

संख्या/ No. ....

दिनांक/ Date .....

No. Acd. Studies/ 4070 Verify-110  
Dated: 5-1-17

To,  
Dr. Geet (Deputy Registrar)  
I.K.Gujral Punjab Technical University  
Jalandhar-Kapurthala Highway  
Kapurthala-144603

**Sub: Authentication of Educational Qualification of Mr/Ms. Prabhkiran Kaur Ex-Student of Doctor of Philosophy (En.No.08923007)**

Sir/Madam

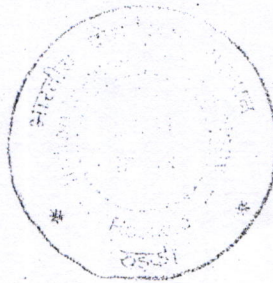
Please refer to your letter No.IKG.PTU/DR/HRD/18283 dated 30-11-2016, on the above cited subject.

In this context, it is to apprise that Ms/Mr. Prabhkiran Kaur had passed Doctor of Philosophy in the year 2012, as per our record. Copy of Degree Certificate issued to him is enclosed duly verified.

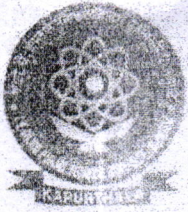
Yours faithfully,

*A. F. Dibeer*  
Asstt. Registrar (Acd. Studies)

Encl.: As above



*Vinay*  
17/1/17



**I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY,  
JALANDHAR**

**Ph.D NOTIFICATION**

Endst. No. IKGPTU/Ph.D/ 490

Dated: 09/08/2019

**Notification: IKGPTU/2019/677 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. *Sonu Bala S/D/o Tarsem Lal*, Regd. No. 1605002 in the faculty of Engineering (*Electronics & Communication Engineering*). This notification is issued on 09/08/19 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
2016	02/08/2019	DEVELOPMENT OF IMPROVED HYBRID MODEL FOR THE ANALYSIS OF MEDICAL DATA	Dr. Ajay Kumar Associate Professor, Beant College of Engg. & Technology, Gurdaspur.  Dr. T.S. Kamal Professor, Punjab Engineering College, Chandigarh.

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

*A. Singh*

Dean (R&D)

*B.*

Controller of Examination

*[Signature]*

Registrar

*[Signature]*  
06/02/2026  
Deputy Registrar (HRM)  
IK Gujral Punjab Technical University  
Jalandhar

Department of  
Research & Development



**PTU**

ਆਈ. ਕੇ. ਗੁਜਰਾਲ ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ

Ref. No. JKGPTO/R&D/73

Dated 02/02/2021

TO WHOM IT MAY CONCERN

It is verified that Dr. Sonu Bala, was a Ph.D student in the Department/Faculty of Engineering (Electronics & Communication Engg.), bearing Regd No.1605002, Dated 09.01.16, I.K Gujral Punjab Technical University has been awarded Ph.D degree on 02.08.2019 and has fulfilled UGC Regulation 2009 for award of Ph.D Degree as per the following criteria :

1. Candidate has completed Coursework including Research Methodology paper.
2. Ph.D degree of the candidate awarded in regular mode only.
3. Evaluation of Ph.D thesis by at least two external examiners.
4. Open Ph.D viva voce of the candidate has been conducted.
5. Candidate has published two research papers from her Ph.D work in refereed journals.
6. Candidate has made two presentations in seminars based on her Ph.D work in the concerned department.

I wish her all the best in her future endeavour.

  
Associate Dean (R&D)

*" Propelling Punjab to a Prosperous Knowledge Society "*

**I.K. Gujral Punjab Technical University**

Jalandhar Kapurthala Highway, Kapurthala – 144603.

Ph.: +91-1822-282558, 9478098058 Website: [www.ptu.ac.in](http://www.ptu.ac.in) Email: [gaurav@ptu.ac.in](mailto:gaurav@ptu.ac.in)