



# Global Group of Institutes

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

**Ph.D NOTIFICATION**

Endst. No. IKGPTU/Ph.D/ 833

Dated: 17/11/18

**Notification: IKGPTU/2018/501 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. *Prateek Agrawal S/D/o Anand Kumar Agrawal*, Regd. No. 1303087 in the faculty of *Engineering (Computer Science and Engineering)*. This notification is issued on 17/11/18 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
2013	24/09/2018	A MACHINE TRANSLATION SYSTEM FOR SANSKRIT TO HINDI LANGUAGE.	Dr. Leena Jain Professor & Head, Global Institute of Management & Emerging Technologies, Amritsar.

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

Dean (R&D)

Controller of Examination

Registrar



# I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY, JALANDHAR

## Ph.D NOTIFICATION

Endst. No. IKGPTU/Ph.D/ 981

Dated: 9/6/2020

### Notification: IKGPTU/2020/811 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. *Amarbir Singh S/D/o Sukhdev Singh*, Regd. No. 1214026 in the faculty of *Applied Sciences (Computer Applications)*. This notification is issued on 9/6/2020 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	26/02/2020	OPTIMIZATION OF VLSI FLOORPLANNING PROBLEM	Dr. Leena Jain Professor & Head, Global Institute of Management & Emerging Technologies, Amritsar.

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

Dean (R&D)

Controller of Examination

Registrar



# I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY, JALANDHAR

## Ph.D NOTIFICATION

Endst. No. IKGPTU/Ph.D/ 883

Dated: 14/2/20

### Notification: IKGPTU/2020/783 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. *Ramandeep Kaur S/D/o Kuldeep Singh*, Regd. No. 1214038 in the faculty of *Applied Sciences (Computer Applications)*. This notification is issued on 14/2/20 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
2012	07/01/2020	DESIGNING METRIC BASED FRAMEWORK FOR USABILITY EVALUATION OF e-LEARNING PORTALS	Dr. Leena Jain Associate Professor & Head, Global Institute of Management & Emerging Technologies, Amritsar.

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

Dean (R&D)

Controller of Examination

Registrar



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

**Ph.D NOTIFICATION**

Endst. No. IKGPTU/Ph.D/ 10/7

Dated: 29/7/20

**Notification: IKGPTU/2020/836 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. *Palwinder Singh S/D/o Tarlok Singh*, Regd. No. 1214027 in the faculty of *Applied Sciences (Computer Applications)*. This notification is issued on 29/7/2020 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	06/05/2020	ANALYSIS AND DESIGN OF VARIOUS DE-NOISING TECHNIQUES FOR ULTRASOUND IMAGES	Dr. Leena Jain Professor & Head, Global Institute of Management and Emerging Technologies, Amritsar

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

Dean (R&D)

Controller of Examination

Registrar



Dr. Anirudh Pratap Singh

Dean  
Research and Development

ਡਾ. ਅਨੀਰੁਧ ਪ੍ਰਤਾਪ ਸਿੰਘ  
ਡੀਨ

ਰਿਸਰਚ ਅਤੇ ਡਿਵੈਲਪਮੈਂਟ



ਆਈ. ਕੇ. ਗੁਜਰਾਲ ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ ਜਲੰਧਰ-ਕਪੂਰਥਲਾ

I. K. GUJRAL PUNJAB TECHNICAL UNIVERSITY JALAN

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Website : www.ptu.ac.in

Ref. No. IKGPTU/R&D/286

Dated 22/7/2

TO WHOM IT MAY CONCERN

This is certified that Mr. / Ms. Palwinder Singh was registered for Ph.D. degree with this University in the discipline of Applied Sciences – Computer Application Mr. / Ms Palwinder Singh conducted research work on the following topic:

Research Topic	ANALYSIS AND DESIGN OF VARIOUS DE-NOISING TECHNIQUES FOR ULTRASOUND IMAGES
Registration No.	1214027
Registration Date	06.06.2012
Name of Supervisor	Dr. Leena Jain, Professor and Head, Global Institute of Management and Emerging Technologies, Amritsar
Name of Co-supervisor	N/A

Mr. / Ms. . Palwinder Singh submitted his / her Ph.D. thesis on 29.05.2019. The same was evaluated by experts. He / She successfully gave his / her viva-voce on 06.05.2020 Subsequently the committee recommended to award the provisional Ph.D. degree to Mr. / Ms. . Palwinder Singh. The final degree will be awarded after the approval of Academic Council and Board of Governors, IKG PTU.

Dean (R&D)

**PERFORMANCE OF EXOTIC MANDARIN CULTIVARS ON  
DIFFERENT ROOT STOCKS IN SUB-TROPICAL PLAINS**

**A Thesis**

**Submitted in partial fulfillment of the requirements for the**

**award of the degree of**

**DOCTOR OF PHILOSOPHY**

**in**

**(HORTICULTURE)**

**By**

**Sukhdip Singh**

**(41400148)**

**Supervised By**

**Dr. J S Bal**

**Co-Supervised by**

**Dr. Jatinder Singh**



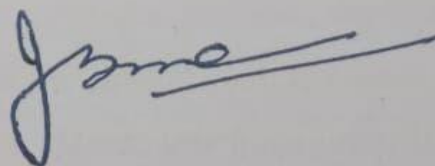
**L** OVELY  
**P** ROFESSIONAL  
**U** NIVERSITY

**Dr. J S Bal**  
**Dean-cum-Head**  
**Global Institute of Management and**  
**Emerging Technologies, Amritsar, Punjab**

**CERTIFICATE-I**

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This is to certify that the thesis entitled **“PERFORMANCE OF EXOTIC MANDARIN CULTIVARS ON DIFFERENT ROOT STOCKS IN SUB-TROPICAL PLAINS”** submitted to the Faculty of Science and Technology, Lovely Professional University, Phagwara, Punjab in partial fulfilment of the requirement for the degree of DOCTOR OF PHILOSOPHY embodies the results of a piece of bonafide research carried out by SUKHDIP SINGH under my guidance and supervision. No part of this thesis has been submitted for any other degree or diploma or published in any other form. All the assistance and help received during the course of investigation and the sources of literature have been duly acknowledged by him.



**Place: Amritsar**

**Dr. J S Bal**  
**(Supervisor)**

**Date : 19-01-2021**