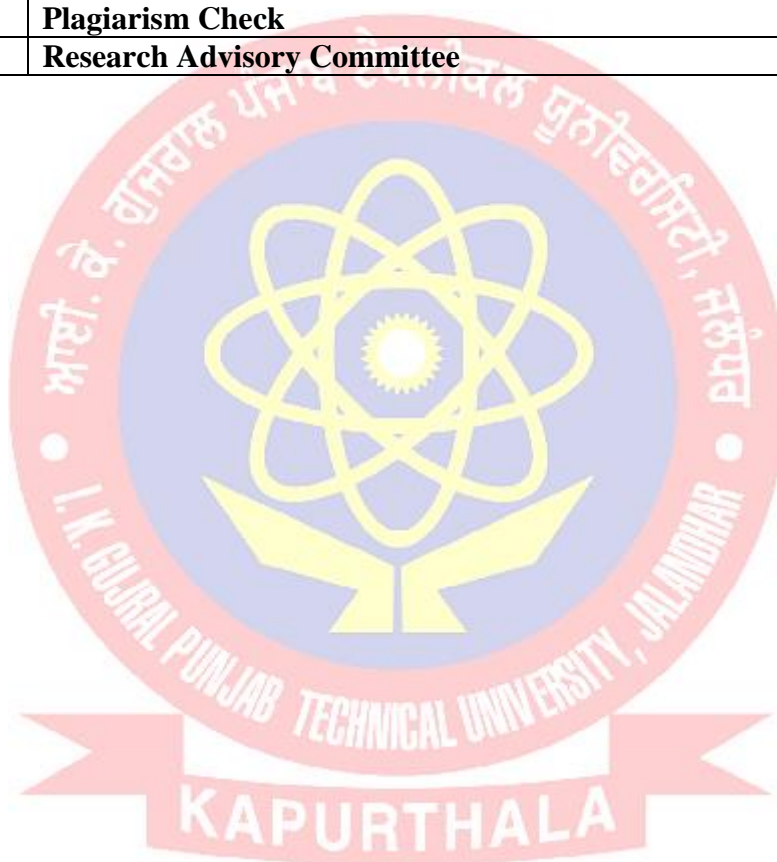


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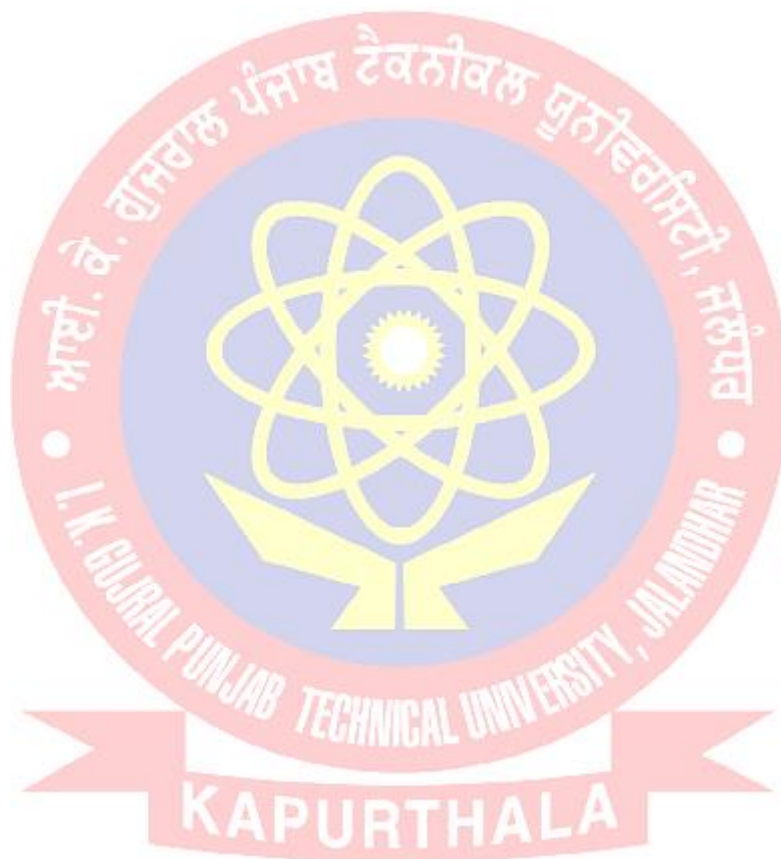
Code of Ethics for Research

Sl. No.	Documents Attached
1.	Syllabus on Research Ethics and Research Methodology
2.	Ethics Committee
3.	Plagiarism Check
4.	Research Advisory Committee



3.4.1

Copy of Syllabus of Course on Research Methodology & Research Ethics



I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

Estd. Under Punjab Technical University Act, 1996
(Punjab Act No. 1 of 1997)

Ref. No. : IKGPTU/Reg/N/

Dated :

NOTIFICATIONSub: **Regarding Pre-Ph.D Course work.**

This is for information of all concerned that Pre-Ph.D course work from 2016-17 will be conducted in the IKGPTU main campus Kapurthala in regular mode. The PhD course work will consists of minimum 15 credits. The structure of the course work is as under.

Sr. No.	Nature of course	Name of course	Credits	Remarks
1.	Core	1. Research Methodology	4	The syllabus of RM should be formulated faculty wise such as Engineering, Science, Management/ Humanities and Life sciences
		2. Subject related theory paper	4	Discipline specific related to advancements in theoretical methods for research
		3. Presentation	3	Discipline specific
2.	Interdisciplinary	4. Elective	4	From list of subjects from allied fields
	Total Minimum credits		15	

-Sd-
Registrar

Endorsement No: IKGPTU/REG/N/4244-4251

Dated: 22.08.2016

1. Secretary to Vice Chancellor: For kind information of Vice Chancellor
2. Dean (P&D)
3. Dean (RIC)
4. Dean (Academics)
5. Finance Officer
6. Controller of Examination
7. DR (Computers): For uploading on website
8. File Copy

27/8/16
MR
Mr. Tulel

Registrar

I. K. Gujral Punjab Technical University, Jalandhar

Jalandhar Kapurthala Highway, Near Pushpa Gujral Science City, Kapurthala - 144 603
Ph. No. 01822 - 662521. 662501 Fax No. : 01822-255506. 662526. Email : registrar@ptu.ac.in

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Research Methodology Syllabus

Pre Ph.D. Course in Electrical Engineering Research Methodology ✓

L	T	P
4	0	0

1. Meaning, Objectives and Characteristics of research - Research methods Vs Methodology - Types of research - Descriptive Vs. Analytical, Applied Vs. Fundamental, Quantitative Vs. Qualitative, Conceptual Vs. Empirical - Research process - Criteria of good research - Developing a research plan.
2. Defining the research problem - Selecting the problem - Necessity of defining the problem - Techniques involved in defining the problem - Importance of literature review in defining a problem - Survey of literature - Primary and secondary sources - Reviews, treatise, monographs patents - web as a source - searching the web - Identifying gap areas from literature review - Development of working hypothesis.
3. Research design and methods - Research design - Basic Principles- Need of research design - Features of good design - Important concepts relating to research design - Observation and Facts, Laws and Theories, Prediction and explanation, Induction, Deduction. Development of Models - Developing a research plan - Exploration, Description, Diagnosis, and Experimentation - Determining experimental and sample designs.
4. Sampling design - Steps in sampling design - Characteristics of a good sample design - Types of sample designs - Measurement and scaling techniques - Methods of data collection - Collection of primary data - Data collection instruments
5. Testing of hypotheses - Basic concepts - P Procedure for hypotheses testing flow diagram for hypotheses testing - Data analysis with Statistical Packages - Correlation and Regression - Important parametric test - Chi-square test - Analysis of variance and Covariance
6. IPRs- Invention and Creativity- Intellectual Property-Importance and Protection of Intellectual Property Rights (IPRs)- A brief summary of: Patents, Copyrights, Trademarks, Industrial Designs- Integrated Circuits-Geographical Indications-Establishment of WIPO- Application and Procedures.
7. Interpretation and report writing - Techniques of interpretation - Structure and components of scientific reports - Different steps in the preparation - Layout, structure and language of the report - Illustrations and tables - Types of report - Technical reports and thesis

Books:

1. Garg, B.L., Karadia, R., Agarwal, F. and Agarwal, U.K., 2002. An introduction to Research Methodology, RBSA Publishers.
2. Kothari, C.R., 1990. Research Methodology: Methods and Techniques. New Age International. 418p.
3. Anderson, T. W., An Introduction to Multivariate Statistical Analysis. Wiley Eastern Pvt. Ltd., New Delhi
4. Sinha, S.C. and Dhiman, A.K., 2002. Research Methodology, Ess Ess Publications. 2 volumes.
5. Trochim, W.M.K., 2005. Research Methods: the concise knowledge base, Atomic Dog Publishing. 270p.

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PHD 901

Research Methodology

Objective: To familiarize the scholars with tools, techniques and methods of research and to equip them with data collection, analysis, interpretation and report writing techniques.

Unit I
<p>Research: Introduction; types of research design and approaches: exploratory designs, descriptive designs, conclusive designs, experimental design (after only designs; before-after designs; before-after with control group designs; randomized two-group design; factorial design; quasi-experimental design; time series design).</p> <p>Qualitative Research Designs: Case studies; survey studies; focus groups.</p> <p>Review of Literature: Goals of literature review; types of review; sources of research literature; writing of review and application of Mendeley software for literature review.</p>
Unit II
<p>Sampling: Theory; designs and issues.</p> <p>Parametric Tests: One sample t-test; independent sample t- test paired sample t-test; Anova and Manova.</p> <p>Non-Parametric Tests: Chi-Square test; runs test; Kruskal-wallis H-test.</p> <p>Sources of Bias: Method for controlling; questionnaire designs; data collection; Assessment methods and measurement. Scaling and measurement: Psychometric considerations; Testing reliability and validity.</p>
Unit III
<p>Multivariate Statistical Techniques: Understanding application and uses of factor analysis, regression analysis, cluster analysis, discriminant analysis and multidimensional scaling through SPSS.</p> <p>Testing the Assumption of Regression: Multicollinearity, hetroscedasticity and autocorrelation.</p> <p>Introduction to panel data and time series analysis. Introduction to E-views.</p>

Suggested Readings:

1. Cooper, D.R. and Schindler, P. S., *Business Research Methods*, Tata McGraw Hill, New Delhi.
2. Levine, D. M., Krehbiel T. C. and Berenson M. L., *Business Statistics*, Pearson Education, New Delhi.
3. Naresh K. Malhotra and Satyabhushan Dash, "Marketing Research: An Applied Orientation", Pearson Education
4. Joseph F. Hair Jr, William C. Black, Barry J. Babin and Rolph E. Anderson, "Multivariate Data Analysis", Pearson
5. Anderson, Sweeney and Williams: *Statistics for Business and Economics*, Thompson, New Delhi.
6. David Wilkinson and Peter Birmingham, *Using Research Instruments: A Guide for Researchers*, Routledge Falmer, New York.

R Gupta

Neeraj

Scant

Harneesh

RESEARCH METHODOLOGY

MPHM-101

1. **Introduction to Research** Objectives of research, motivation in research, types of research, significance of research, research methods vs methodology, research process in flow chart, criteria of good research, problems encountered by researchers in India.
2. Difference between TEX and LATEX, basics of using latex, latex input files, input file structures, layout of the document, titles, chapter and sections, cross references, foot note, environments, typesetting, building blocks of a mathematical formula, matrices, tables, including encapsulated postscript graphics, bibliography, downloading and installing LATEX packages.
3. Introduction to MATHEMATICA and MATLAB
4. Introduction to origin, basics of importing and exporting data, working with Microsoft excel, graphing, statistics in origin, hypothesis testing, power and sample size, basic linear regression and curve fitting.
5. Error Analysis and Basic Statistics Measuring errors, uncertainties, parent and sample distributions, mean and standard deviation of distribution, types of probability distribution, instrumental and statistical uncertainties, propagation of errors, specific error formulas, method of least square fitting.
6. **Multivariate analysis:** Multiple regression, multiple discriminant analysis, multiple analysis of variance, canonical correlation analysis, Factor analysis cluster analysis, path analysis. Computational techniques.
7. **Survey of literature:** The students will be required to review literature in their respective disciplines and submit an assignment for evaluation.

REFERENCES:

1. Research methodology (<http://www.newagepublishers.com/samplechapter/000896.pdf>)
2. The not so short introduction to LATEX by Tobias Oetiker, Hubert Partl, Hrene Hyna and Elisabeth Schlegl, Version 4.16, May 08, 2005 (<http://tobi.oetiker.ch/lshort/lshort.pdf>)
3. T. Veerarajan and T. Ramachandran "Numerical methods" Tata McGraw Hill, New Delhi, 2008
4. Data reduction and error analysis for physical sciences by Philip R. Bevington and D. Keith Robinson
(http://www.physast.uga.edu/files/phys3330_fertig/BasicErrorAnalysis.pdf)

19/7/16

19/7/2016

19/7/2016

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8. Research ethics, IPR and publishing Ethics: ethical issues. IPR: intellectual property rights and patent law, techniques of writing a Patent, filing procedure, technology transfer, copy right, royalty, trade related aspects of intellectual property rights Publishing: design of research paper, citation and acknowledgement, plagiarism tools, reproducibility and accountability.

Books:

1. C.R. Kothari, "Research Methodology-Methods and Techniques", Wiley Eastern Ltd 2009.
2. B.L. Wadehra. Law relating to patents, trademarks, copyright designs and geographical indications, Universal Law Publishing. 2014.
3. K. N. Krishnaswamy, Appa Iyer Sivakumar, M. Mathirajan," Management Research Methodology: Integration of Methods and Techniques, Pearson, 2006 4. S.P Gupta,"Statistical Methods", Sultan Chand & Sons, 2006.
4. Douglas C Montgomery, "Design and Analysis of Experiments" ,John Wiley Publishers.
5. Montgomery D.C., Runger G.C., "Introduction to Linear Regression Analysis", John Wiley Publishers.
6. Myres R.H. and Montgomery D.C., "Response Surface Methodology Process and Product Optimization using designed experiments", Wiley Publishers.

Pre Ph.D. Course in Mechanical Engineering
Advanced Heat Transfer

L	T	P
4	0	0

1. Conduction: Steady state heat conduction including heat generation and heat losses in different co-ordinates, numerical analogue and graphical methods. Unsteady state heat conduction as applied to thick wall, cylinder and sphere with sudden and with periodic changes of surface temperature. Semi-infinite state with imposed wall temperature distribution. Heat conduction with moving boundaries, numerical analogue and graphical methods.
2. Conductive Heat Transfer: Fundamentals: Reynold transport theorem. Derivation of N.S equation and energy; Dimensionless Number. Numerical problems and mathematical modelling.
3. Convection: Convection in fully developed flow and developing flow. Effect of wall boundary condition. Natural Convection: External flows; boundary laying integral similarity solution; Exact & empirical correlation, Heat transfer over plane plate, cylinders, tube banks,

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Paper Title: Research Presentation

L	T	P
0	0	3

Research Scholar will have to present a seminar based upon his/her research area. Performance of the scholar and participation in seminar will be taken into consideration.

**Pre Ph.D. Course in Computer Science and Engineering
Research Methodology**

L	T	P
4	0	0

1. Introduction Research Methodology: Definition of Research, Need of Research, Concept and steps of Research Methodology, Uses of Research Methodology, Research Techniques. Reviewing Literature: Need, Sources-Primary and Secondary, Purposes of Review, Scope of Review, Steps in conducting review.
 2. Identifying and defining research problem: Locating, Analyzing stating and evaluating problem, Generating different types of hypotheses and evaluating them. Method of Research: Descriptive research design-survey, case study, content analysis, Ex-post Facto Research, Correlational and Experimental Research.
 3. Sampling Techniques : Concept of population and sample* sampling techniques-simple random sampling, stratified random sampling, systematic sampling and cluster sampling, quota sampling techniques determining size of sample. Procedure of data collection: Aspects of data collection, Techniques of data Collection
 4. Statistical Methods of Analysis: Descriptive statistics: Meaning, graphical representations, mean, range and standard deviation, characteristics and uses of normal curve, Inferential statistics: t-test, Chi-square tests, Correlation (rank difference and product moment), ANOVA (one way).
 5. Procedure for writing a research proposal and report: Purpose, types and components of research proposal, Audiences and types of research reports, Format of Research report and journal.
- Case Studies on s/w tools used for research work.

Books:

1. C.R. Kothari, "Research Methodology – Methods and Techniques", Wiley Eastern Ltd 2009
2. Richard I. Levin, David S. Rubin, Statistics for Management (7th Edition), Pearson Education India.
3. K. N. Krishnaswamy, Appa Iyer Sivakumar, M. Mathirajan, "Management Research Methodology: Integration of Methods and Techniques, Pearson, 2006
4. S.P Gupta, "Statistical Methods", Sultan Chand & Sons, 2006

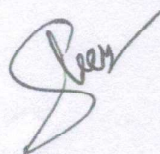
Physics

PHS900 Research Methodology

1. Introduction to Research, Objectives of research, motivation in research, types of research, significance of research, research methods vs methodology, research process in flow chart, criteria of good research, problems encountered by researchers in India.
2. Difference between TEX and LATEX, basics of using latex, latex input files, input file structures, layout of the document, titles, chapter and sections, cross references, foot note, environments, typesetting, building blocks of a mathematical formula, matrices, tables, including encapsulated postscript graphics, bibliography, downloading and installing LATEX packages.
3. Introduction to origin, basics of importing and exporting data, working with Microsoft excel, graphing, statistics in origin, hypothesis testing, power and sample size, basic linear regression and curve fitting.
4. Error Analysis and Basic Statistics Measuring errors, uncertainties, parent and sample distributions, mean and standard deviation of distribution, types of probability distribution, instrumental and statistical uncertainties, propagation of errors, specific error formulas, method of least square fitting.
5. Multivariate analysis: Multiple regression, multiple discriminant analysis, multiple analysis of variance, canonical correlation analysis, Factor analysis cluster analysis, path analysis. Computational techniques.
6. Survey of literature: The students will be required to review literature in their respective disciplines and submit an assignment for evaluation.

References:

1. Research Methods for Science by Michael P. Marde
2. The not so short introduction to LATEX by Tobian Oetiker, Hubert Partl, Hrene Hyna and Elisabeth Schlegl
3. T.Veerarajan and T. Ramachandran "Numerical methods" Tata McGraw Hill, New Delhi, 2008
4. Data reduction and error analysis for physical sciences by Philip R. Bevington and D. Keith Robinson



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RESEARCH METHODOLOGY

Course code

L T P C

PHAS - 901

3 1 0 4

1. Introduction to Research:-

Objectives of research, motivation in research, types of research, significance of research, research methods vs methodology, research process in flow chart, criteria of good research, problems encountered by researchers in India.

2. Thinking Processes:

Role of thinking in research, levels and styles of thinking; common-sense and scientific thinking; examples.

3. Problem solving:

Problem solving strategies – reformulation or rephrasing, techniques of representation, logical thinking, division into sub- problems, verbalization, awareness of scale; importance of graphical representation; examples

4. Experimental and modeling skills:

Census and sample survey, sampling procedure, important scaling techniques, methods of data collection, estimation and reduction of random errors; detection and elimination of systematic errors; guidelines for constructing questionnaire, Scientific method; role of hypothesis in experiment; hypothesis testing; F test, t test, Chi Square test, use of ANOVA; Types of models; the art of making approximations; problem representation; logical reasoning; mathematical skills; techniques of numerical simulation.

5. Problem finding and literature survey:

Information gathering – reading, searching and documentation; types, attributes and sources of research problems; problem formulation, relative

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importance of various forms of publications; choice of journal and reviewing process; Difference between publishing and patenting;

6. Chemdraw and documentation

Difference between TEX and LATEX, basics of using latex, latex input files, input file structures, layout of the document, titles, chapter and sections, cross references, foot note, environments, typesetting, building blocks of a mathematical formula, matrices, tables, including encapsulated postscript graphics, bibliography, downloading and working of CHEMDRAW software

7. Data And its Presentation

Introduction to origin, basics of importing and exporting data, working with Microsoft excel, graphing, statistics in origin, hypothesis testing, power and sample size, basic linear regression and curve fitting.

8. Statistical Analysis of Data

Error Analysis and Basic Statistics Measuring errors, uncertainties, parent and sample distributions, mean and standard deviation of distribution, types of probability distribution, instrumental and statistical uncertainties, propagation of errors, specific error formulas, method of least square fitting.

9. Multivariate analysis:

Multiple regression, multiple discriminant analysis, multiple analysis of variance, canonical correlation analysis, Factor analysis cluster analysis, path analysis. Computational techniques.

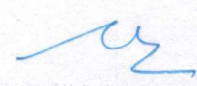
10. Stress management, Time management, Interpersonal skills, professional ethics:

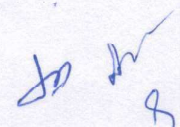
Psychological phases of a PhD process; stress points; Managing self; teamwork; sense of humor; Plagiarism and research ethics

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REFERENCES:

1. Research methodology: (<http://www.newagepublishers.com/samplechapter/000896.pdf>)
2. The not so short introduction to LATEX by Tobias Oetiker, Hubert Partl, Hren Hyna and Elisabeth Schlegl, Version 4.16, May 08, 2005. (<http://tobi.oetiker.ch/lshort/lshort.pdf>)
3. T. Veerarajan and T. Ramachandran "Numerical methods" Tata McGraw Hill, New Delhi, 2008
4. Data reduction and error analysis for physical sciences by Philip R. Bevington and D. Keith Robinson. (http://www.physast.uga.edu/files/phys3330_fertic/BasicErrorAnalysis.pdf)
5. E.M. Phillips and D S Pugh, "How to get a PhD – a handbook for PhD students and their supervisors", Viva books Pvt. Ltd for all scholars irrespective of their disciplines.
6. Handbook of Science Communication, compiled by Antony Wilson, Jane Gregory, Steve Miller, Shirley Earl, Overseas Press Indian Pvt. Ltd, New Delhi, first edition 2005.
7. G L Squires, "Practical physics", Cambridge University Press for all scholars except those from Humanities and Management sciences.
8. Peter B Medeq, "Advice to a Young Scientist", Pan Books, London 1979.
9. Kothari C R, "Research Methodology – Methods and Techniques", Wishwa Prakashan, New Delhi, Third Edition 2008.


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IK Gujral Punjab Technical University
PhD Course Work: Pharmaceutical Sciences/Batch2019

Course Code	Course Title	Teaching Load			Marks		Exam (hrs)		Credits
		L	T	P	Int.	Ext.	Int.	Ext.	
PHP-101	Research Methodology	3	1	-	30	70	1.5	3	4

Overview of Research

10 Hrs

Research and its type, identifying and defining research problems, introduction to different types of research designs. Essential constituents of literature review. Basic principles of experimental design, completely randomized, randomized block, Latin square, factorial

Methods of Data Collection

04 Hrs

Primary and secondary data, methods of primary data collection, classification of secondary data

Sampling Methods

10 Hrs

Probability sampling: simple random sample, systematic sampling, stratified sampling, cluster sampling and multistage sampling; Non-probability sampling: convenience sampling, judgement sampling, quota sampling; sampling distribution

Processing and Data Analysis

15 Hrs

Statistical measures and their significance: central tendencies, measures of variability, skewness, kurtosis, correlation and regression; hypothesis testing: parametric test (z, t, F), Chi square, ANOVA and non-parametric test

Reliability and Validity

03 Hrs

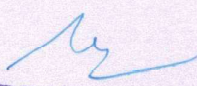
Test- retest reliability, alternative form reliability, internal-comparison reliability, and scorer reliability; content validity, criterion- related validity and construct validity

Essentials of Report Writing

05 Hrs

Suggested Readings/Recommended Books (Latest Editions)

1. Geoffrey R. Norman, David L. Streiner, Biostatistics: The Bare Essentials, PMPH USA
2. Beth Dawson, Robert G. Trapp, Basic & Clinical Biostatistics, McGraw-Hill
3. Marcello Pagano, Kimberlee Gauvreau, Principles of Biostatistics, CRC Press
4. Antonella Bacchieri, Giovanni Della Cioppa, Fundamentals of Clinical Research, Springer
5. Katsumi Kobayashi, K. Sadasivan Pillai, A Handbook of Applied Statistics in Pharmacology, CRC Press


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Pre Ph.D. Course in Mechanical Engineering

Research Methodology

L	T	P
4	0	0

Research Scholar will have to present a seminar based upon his/her research area. Performance of the scholar and participation in seminar will be taken into consideration.

1. Introduction to Research Methodology: Definition, Need, Concept, Types, Uses, Research techniques, Reviewing literature: Need, Sources-primary and secondary, Purposes of review, Scope of review, Steps in conducting review.
2. Identifying and defining research problem: Locating, analyzing, stating and evaluating problem, generating different types of hypotheses and evaluating them.
3. Review of data collection: Static and dynamic characteristics of instruments used in experimental set up, calibration of various instruments, sampling methods, methods of data collection, selection of appropriate method for data collection, data collection using a digital computer system, case studies of data collection.
4. Data Analysis: Data processing, data analysis strategies and tools, data analysis with statistical packages, basic concepts concerning testing of hypotheses, procedures of hypothesis testing, generalization and interpretation applied statistics: regression analysis, parameter estimation, multivariate statistics, principal component analysis software tools for modeling, simulation and analysis.
5. Design of Experiments: Concept design, Parameter design, Tolerance design, Quality loss function, Signal-to- Noise ratio, Orthogonal array experiments, Analysis of Mean (ANOM), Quality characteristics, Selection and testing of noise factors, Selection of control factors, Parameter optimization experiment, Parameter design case study
6. Analysis of Variance: Introduction, Example of ANOVA process, Degrees of freedom, Error variance and pooling, Error variance and application, Error variance and utilizing empty columns, the F-test, case study and practical applications.
7. Research reports and Thesis writing: Structure and components of scientific reports, types of report, developing research proposal. Thesis writing: Procedure and steps.

Pre Ph.D. Course in Civil Engineering

Research Methodology

L T P

4 0 0

1. Introduction Research Methodology: Definition of Research, Need of Research, Concept and steps of Research Methodology, Uses of Research Methodology, Research Techniques. Reviewing Literature: Need, Sources-Primary and Secondary, Purposes of Review, Scope of Review, Steps in conducting review.

2. Identifying and defining research problem: Locating. Analyzing stating and evaluating problem, Generating different types of hypotheses and evaluating them.

3. Data collection: Static and dynamic characteristics of instruments used in experimental set up, calibration of various instruments, sampling methods, methods of data collection, Selection of Appropriate Method for Data Collection, Data collection using a digital computer system, case studies of data collection

4. Data Analysis: Data processing, data analysis strategies and tools, data analysis with statistical packages, Basic Concepts concerning testing of hypotheses, procedures of hypothesis testing, generalization and interpretation Applied statistics: Regression analysis, Parameter estimation, Multivariate statistics, Principal component analysis Software tools for modeling, Simulation and analysis

5. Research reports and Thesis writing: Introduction: Structure and components of scientific reports, types of report, developing research proposal. Thesis writing: different steps and software tools in the design and preparation of thesis, layout, structure and language of typical reports, Illustrations and tables, bibliography, referencing and footnotes, word processing tools such as Latex Oral presentation: planning, software tools, creating and making effective presentation, use of visual aids, importance of effective communication.

6. Research ethics, IPR and publishing Ethics: ethical issues. IPR: intellectual property rights and patent law, techniques of writing a Patent, filing procedure, technology transfer, copy right, royalty, trade related aspects of intellectual property rights Publishing: design of research paper, citation and acknowledgement, plagiarism tools, reproducibility and accountability.

Books:

1. C.R. Kothari, "Research Methodology – Methods and Techniques", Wiley Eastern Ltd 2009.
2. B.L. Wadehra, Law relating to patents, trademarks, copyright designs and geographical indications, Universal Law Publishing, 2014.
3. K. N. Krishnaswamy, Appa Iyer Sivakumar, M. Mathirajan, " Management Research Methodology: Integration of Methods and Techniques, Pearson, 2006
4. S.P Gupta, "Statistical Methods", Sultan Chand & Sons, 2006.

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Research Ethics Syllabus

Indicator :3.4.1

Inclusion of Research Ethics in the Research Methodology course work:

In accordance with UGC letter No. D.O.No. F1-1/2018 (Journal/ CARE) of December 2019, a two credit course of "Research & Publication Ethics (RPE)" has been introduced in the PhD course work offered by the University and implemented from session January 2021.

Apart from this, in order to promote innovative research and to ensure publications of high quality the guidelines for ethical conduct of research are also part of the PhD regulations of University.

Presence of Institutional Ethics Committee/s (Animals, Chemical, bio-ethics etc.)

The University research scholar and faculty conduct the research work which involve the animal experimentation and chemical for experiments. The University is firmly committed to strictly adhere all the regulatory requirements and guidelines related to chemical and animal experiments at every point of research.

Plagiarism Check

To promote Academic Integrity, to ensure fair conduct of research and prevention of misconduct an Anti-Plagiarism policy of the university is also part of its PhD Regulations.

An Anti-Plagiarism software has been subscribed by the University and the access of same is being provided to research scholars, supervisors and faculty.

Research Advisory Committee (RAC)

For periodically review and to assist in research work to the research scholars a Research Advisory Committee for each PhD scholar is to be constituted by the University.



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18.

I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

DEPARTMENT OF RESEARCH AND DEVELOPMENT

Estd. Under Punjab Technical University Act, 1996 (Punjab Act No. 1 of 1997)

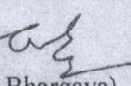
Ref. No. IKGPTU/R&D/362

Dated: 25-5-2021

Meeting Notice

University is in going to introduce a two credit course "Research and Publication Ethics (RPE) to its Ph.D. coursework structure as per UGC guidelines, which will be applicable to all new entrant to the Ph.D. at IKGPTU starting from summer 2021 session. A meeting of Chairperson, Board of Studies cum HoD, Main Campus is hereby scheduled to decide course content through online mode on dated 01.06.2021 at 3:00 pm. All are requested to attend the meeting:

1. Chairman BOS-cum- HoD, Civil Engineering
2. Chairman BOS-cum- HoD, Computer Science Engineering
3. Chairman BOS-cum- HoD, Electrical Engineering
4. Chairman BOS-cum- HoD, Electronics & Communication Engineering
5. Chairman BOS-cum- HoD, Food Science & Technology
6. Chairman BOS-cum- HoD, Mechanical Engineering
7. Chairman BOS-cum- HoD, Management Studies
8. Chairman BOS-cum- HoD, Architecture
9. Chairman BOS-cum- HoD, Chemical Sciences
10. Chairman BOS-cum- HoD, Physical Sciences
11. Chairman BOS-cum- HoD, Mathematical Sciences
12. Chairman BOS-cum- HoD, Journalism & Mass Communication
13. Chairman BOS-cum- HoD, Humanity, Languages & Cultural Studies
14. Chairman BOS cum HoD, Hotel/ Tourism & Travel Management

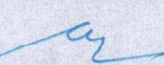

(Dr. Gaurav Bhargava)
Dean (R&D)

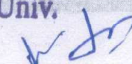

Copy to:

1. I/C Secretariat, O/O Vice Chancellor: For kind information of Vice Chancellor.
2. Registrar for information please.
3. Deputy Registrar, R&D
4. All concerned
5. File

I.K. Gujral Punjab Technical University, Jalandhar

Jalandhar-Kapurthala Highway, Near Pushpa Gujral Science City, Kapurthala - 144 603
Phone No. 01822-282569


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Minutes of the meeting to decide the course content of mandatorily introduction of a two credit course "Research and Publication Ethics (RPE)" to all PhD students in their pre-registration course work.

The meeting was held on 01.06.2021 at 3:00 PM through online mode. The following were present.

1. Dean (R&D)
2. Chairman BOS-cum-HoD, Civil Engineering
3. Chairman BOS-cum-HoD, Computer Science Engineering
4. Chairman BOS-cum-HoD, Electrical Engineering
5. Chairman BOS-cum-HoD, Electronics & Communication Engineering
6. Chairman BOS-cum-HoD, Food Science & Technology
7. Chairman BOS-cum-HoD, Mechanical Engineering
8. Chairman BOS-cum-HoD, Management Studies
9. Chairman BOS-cum-HoD, Architecture
10. Chairman BOS-cum-HoD, Chemical Sciences
11. Chairman BOS-cum-HoD, Physical Sciences
12. Chairman BOS-cum-HoD, Mathematical Sciences
13. Chairman BOS-cum-HoD, Journalism & Mass Communication
14. Chairman BOS-cum-HoD, Humanities, Languages & Cultural Studies
15. Chairman BOS-cum-HoD, Hotel/Tourism & Travel Management

Committee deliberated upon the issues and recommended the following:

1. Course Content:

Committee unanimously decided that the course content/ structure which was provided by the UGC letter No.D.O.No.F.1-1/2018(Journal/CARE) dated December 2019 can be included in Ph.D. course work. Which is as follows:

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Research and Publication Ethics (RPE) (2 Credits)

Course structure

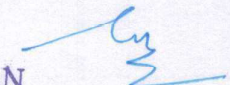
- The course comprises of six modules listed in table below. Each module has 4-5 units.

Modules	Unit title	Teaching hours
Theory		
RPE 01	Philosophy and Ethics	4
RPE 02	Scientific Conduct	4
RPE 03	Publication Ethics	7
Practice		
RPE 04	Open Access Publishing	4
RPE 05	Publication Misconduct	4
RPE 06	Database and Research Metrics	7
	Total	30

Syllabus (as suggested by UGC)

THEORY

- RPE 01: PHILOSOPHY AND ETHICS (3hrs.)**
 1. Introduction to Philosophy: definition, nature and scope, concept, branches
 2. Ethics: definition, moral Philosophy, nature of moral judgements and reactions
- RPE 02: SCIENTIFIC CONDUCT (5hrs.)**
 1. Ethics with respect to science and research
 2. Intellectual honesty and research integrity
 3. Scientific misconducts: Falsification, Fabrication and Plagiarism (FFP)
 4. Redundant publications: duplicate and overlapping publications, salami slicing.
 5. Selective reporting and misrepresentation of data
- RPE 03: PUBLICATION ETHICS (7hrs.)**
 1. Publication Ethics: definition, introduction, and importance
 2. Best practices/standards setting initiatives and guidelines: COPE, WAME, etc.
 3. Conflicts of interest
 4. Publication misconduct: definition, concept, problems that lead to unethical behaviour and vice versa, types.
 5. Violation of publication ethics, authorship, and contributorship
 6. Identification of publication misconduct, complaints and appeals
 7. Predatory publishers and journals


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PRACTICE**• RPE 04: OPEN ACCESS PUBLISHING (4hrs.)**

1. Open access publications and initiatives
2. SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies.
3. Software tool to identify predatory publications developed by SPPU.
4. Journal finder/journal suggestion tool viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

• RPE 05: PUBLICATION MISCONDUCT (4hrs.)**A. Group Discussion (2hrs.)**

1. Subject specific ethical issues, FFP, authorship
2. Conflicts of interest
3. Complaints and appeals: examples and fraud from India and abroad

B. Software tools (2hrs.)

Use of plagiarism software like Turnitin, Urkund, and other open-source software tools.

• RPE 06: DATABASES AND RESEARCH METRICS (7hrs.)**A. Databases (4hrs.)**

1. Indexing databases
2. Citation databases: Web of Science, Scopus, etc.

B. Research Metrics (3hrs.)

1. Impact Factor of journal as per Citation Report, SNIP, SJR, IPP, Cite Score
2. Metrics: h-index, g-index, i10 index, altmetrics

2.Course Work Structure – 17 Credits

All candidates admitted to Ph.D programme shall be required to complete the Ph.D course work, proposed by the Supervisor keeping in view the candidate's areas of research in the University Teaching Department. Pre Ph.D course work will be **17 credits and shall be offered on regular** basis at IKG TU campus.

Structure of course work is as under: -



Sr. No	Nature of Course	Name of Course	Credits	Remarks
1	Core	1. Research Methodology	4	The syllabus of RM should be formulated faculty wise such as Engineering, Sciences, Management/ Humanities and Life Sciences
		2. Subject Related theory paper	4	Discipline specific related to Advancements in theoretical methods for research.
		3. Presentation	3	Discipline specific
2.	Interdisciplinary	4. Elective	4	From list of Subjects from allied fields
3.	Research and Publication Ethics (RPE)	5. Research and Publication Ethics (RPE)	2	As Per UGC
Total Minimum credits			17	

- The candidate will have to clear Courses within the first two semesters as per the programme of the Department.
- Direct fellowship awardees or candidates registered for Ph.D. during the middle of the semester will take up course work in the following semester
- The syllabus for the Pre-Ph.D. course work, not covered in the ongoing PG curriculum, will be drawn by the Board of Studies or RAC subject to the approval by BoS and highest academic body of the University.
- An Attendance less than the mandatory 75% (including 10% attendance benefit on medical grounds) in the course work shall attract cut in the scholarship /fellowship.

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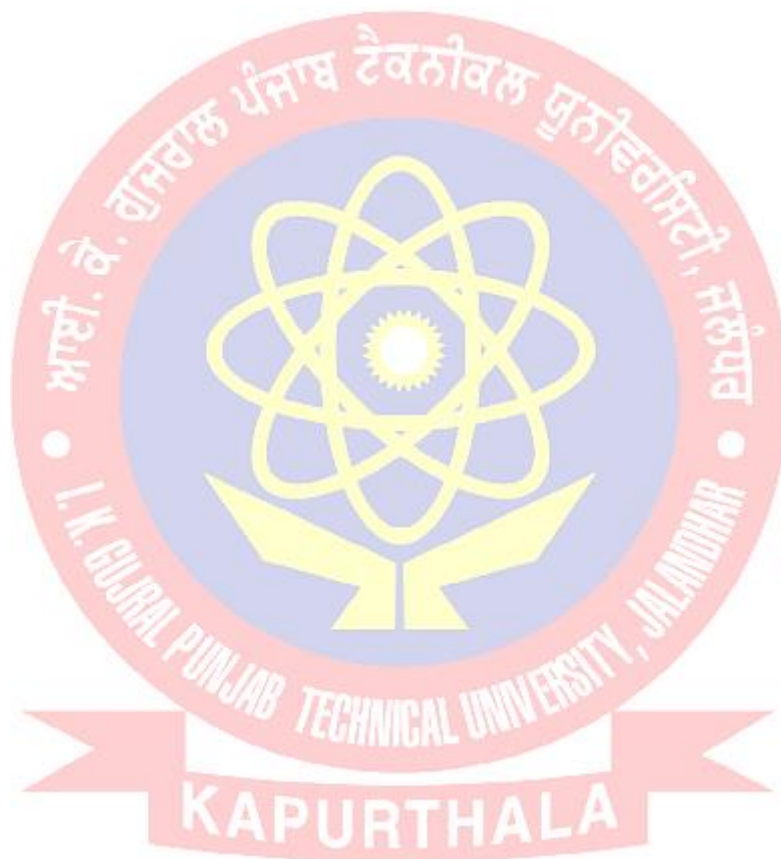
3. Applicability:

It is decided that the 17 credit course work will be applicable to all students which are enrolled from January 2021 onwards.


(Dr. Gaurav Bhargava) 21/6/21
Dean(R&D) 

3.4.1

Institutional Ethics Committee (Chemical)



IKG Punjab Technical University, Kapurthala
Department of Chemical Sciences (Main Campus)

Ref.No:-IKGPTU/CS/ 1902

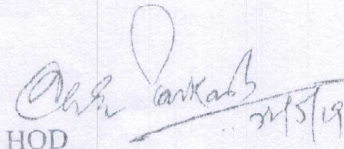
Date:-22/05/2019

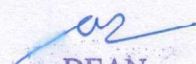
This is reference to the adoption of safety protocol for the uses of chemicals at Department of Chemical Sciences, CB-III, IKGPTU (Main Campus). In this reference the following committee is hereby constituted with the following members:-

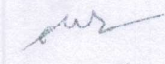
1. Dr. Gaurav Bhargava (HOD)
2. Dr. Chander Parkash (A.P)
3. Dr. Vandana Naithani (A.P)
4. Dr. Rupesh Kumar (A.P)
5. Dr. Roopa (A.P)
6. Dr. Reshu Sanan (A.P)

Terms and Scope of the committee:-

- The committee will sit at least twice a year.
- Will review all the safety matter related to usage of Chemicals.
- Will deal with any other such matter as it deems fit for discussion and as is directed by the Board of studies of the said subject/Internal Quality Assurance Cell/ Academic Council or standing Committee off the Academic Council/ Governing Body / Departmental committee of the said subject.


HOD
for (Chemical Sciences)


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Head
Department of Chemical Sciences
IKG Punjab Technical University
Kapurthala - 144603 Punjab (India)

IKG Punjab Technical University, Kapurthala
Department of Chemical Sciences (Main Campus)

Ref.No:-IKGPTU/CS/1908

Date:-31/05/2019

This is to notify that the 1st Meeting of the adoption of safety protocol for the uses of chemicals at Department of Chemical Sciences, CB-III, (Main Campus) IKGPTU will be held on 22/07/2019 to discuss the agenda as mentioned below.

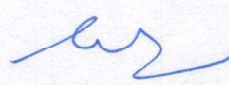
Following members are requested to attend.

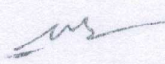
1. Dr. Gaurav Bhargava (HOD)
2. Dr. Chander Parkash (A.P)
3. Dr. Vandana Naithani (A.P)
4. Dr. Rupesh Kumar (A.P)
5. Dr. Roopa (A.P)
6. Dr. Reshu Sanan (A.P)

Agenda:-

1. Reviewing the curriculum and discussion any matter which may have any chemical ethics issues.
2. Usage of hazardous Chemical.
3. Safety issues of all stakeholders.
4. Any other matter.

to Vandana
31/05/2019
HOD
(Chemical Sciences)


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Jalandhar


Head
Department of Chemical Sciences
IKG Punjab Technical University
Kapurthala - 144606 Punjab (India)

IKG Punjab Technical University, Kapurthala
Department of Chemical Sciences (Main Campus)

Ref. No. IKGPTU/CS/3020

Date-21/06/2021

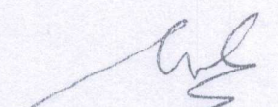
The meeting to review the implementation of policy for chemical waste was held on 21/06/2021 in the office of HOD, Department of Chemical Sciences, IKGPTU

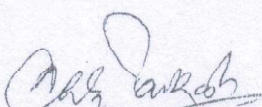
The following faculty members were present in the meeting

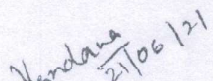
- (i) Dr. Gaurav Bhargava, Head
- (ii) Dr. Chander Prakash, AP
- (iii) Dr. Vandana Naithani, AP
- (iv) Dr. Rupesh Kumar, AP
- (v) Dr. Reshu Sanan, AP

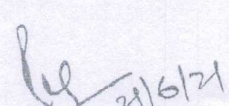
The following points have been reviewed:

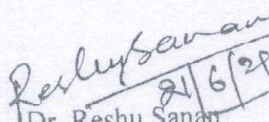
1. Fire extinguishers have been installed in all laboratories.
2. First-aid kit are available in all labs.
3. Arrangement for segregation of wastes in different containers is done.
4. Recycling and reuse of solvents wherever possible is being done.
5. Marking of Area for land-fill will be decided and finalized in consultation with university authorities.

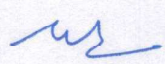

 Dr. Gaurav Bhargava
 (Associate Professor & Head)


 Dr. Chander Prakash
 (Assistant Professor)


 Dr. Vandana Naithani
 (Assistant Professor)


 Dr. Rupesh Kumar
 (Assistant Professor)


 Dr. Reshu Sanan
 (Assistant Professor)


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IKG Punjab Technical University, Kapurthala
Department of Chemical Sciences (Main Campus)

Ref. No. IKGPTU/CS/1981-A

Date-22/07/2019

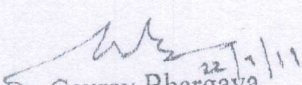
The first meeting of safety protocol for the uses of chemicals was held on 22/07/2019 at 11:00 am in the office of HOD, Department of Chemical Sciences, IKGPTU

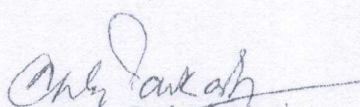
The following faculty members were present in the meeting

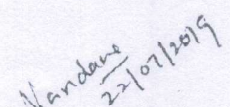
- (i) Dr. Gaurav Bhargava, Head
- (ii) Dr. Chander Prakash, AP
- (iii) Dr. Vandana Naithani, AP
- (iv) Dr. Rupesh Kumar, AP
- (v) Dr. Roopa, AP

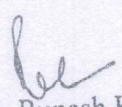
The following points have been discussed and resolved:

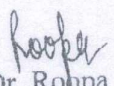
1. The policy for the chemical waste management was thoroughly discussed and approved and to be adopted in department of chemical sciences. The policy document is attached as Annexure A.
2. In accordance with the policy adopted, the required measures will be implemented/monitored by the respective lab in charges.


Dr. Gaurav Bhargava
(Professor & Head)

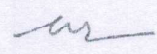

Dr. Chander Prakash
(Assistant Professor)


Dr. Vandana Naithani
(Assistant Professor)


Dr. Rupesh Kumar
(Assistant Professor)


Dr. Roopa
(Assistant Professor)


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Head
Department of Chemical Sciences
IKG Punjab Technical University
Jalandhar

Policy for the chemical waste management at the Department of Chemical Sciences, IKG Punjab Technical University, Kapurthala

Introduction

Waste materials are substances which are no longer of use and thus needs to be discarded after primary use. They may be in the form of solids, liquids or gases in a container. Waste materials may also include hazardous residues. Chemical waste consists of chemical substances, including laboratory chemicals, film developer, disinfectants (expired or no longer in use), solvents, cleaning agents and others types. Some of these waste requires particular attention and disposal and thus Waste legislation divides waste into non-hazardous and hazardous categories.

As department of chemical sciences is offering graduate, postgraduate and research programmes in chemistry, use of chemicals and disposal needs to be proper with regards to health and environment safety. The goal of this Chemical Waste Management Plan is to protect the health and safety of employees, students, and the environment while complying with applicable Hazardous waste management rules 2016, Government of India. Hence the following policy is being recommended for the chemical waste management at departmental level.

1. General rules for laboratories

- (a) These rules will be applicable to all undergraduate/postgraduate/research laboratories of the chemical sciences department and must be familiar to all the users of laboratory.
- (b) All laboratories must be equipped with fire extinguishers and first-aid boxes.
- (c) The laboratory rooms are only to be used during working hours. Outside working hours, usage is permitted only with the approval of the laboratory supervisor. No visitors are to be allowed into the laboratory rooms since no liability exists for persons not employed by the institute.
- (d) Safety glasses and laboratory coats must always be worn in the laboratory.
- (e) Appropriate gloves (rubber gloves, fire resistant gloves) must be worn when handling corrosive or very hot (oven) materials.
- (f) All containers in which chemicals are stored must be clearly and durably labelled (labels attached as Annexure A).

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- (g) Large amounts of flammable materials are only to be stored in the chemical store specified for this purpose. Storage of these materials in corridors, stairways or hallways is forbidden.
- (h) Large amounts of flammable materials are only to be stored in the chemical store specified for this purpose. storage of these materials in corridors, stairways or hallways is forbidden.
- (i) Each user is responsible for cleanliness, orderliness and his/her own safety. After the completion of work, the work area and apparatus should be clean and the chemicals used must be returned to the chemical cabinet.
- (j) Prior to the use of equipment, it is absolutely necessary that the appropriate operating instructions are understood, or introductory guidance obtained. Damaged or defective equipment should be immediately reported.
- (k) Before leaving the laboratory room, the windows should be closed, gas and water taps should be shut off, electronic equipment excepting permanently active (e.g. drying cabinets, refrigerators and freezers) must be turned off, the lights switched off and the laboratory locked.

2. Chemicals recommended for use in laboratory

- (a) Preference will be given to chemicals which are not hazardous to the health/environment (biodegradable chemicals)
- (b) All substances which potentially pose a chemical, health and/or environmental risk must be properly classified and labelled.

3. Classification and labelling of chemicals

- (a) The classification of chemical hazards according to GHS rules (Globally Harmonized system of classification and labelling of chemicals), 1992, United Nations

- Physical hazards
- Health hazards
- Environmental hazards
- Hazard communication

- (b) According to GHs, the product label must contain certain prescribed information which describes the hazards associated with the product. The chemical identity,

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Kapurthala - 144603 Punjab (INDIA)

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standardized hazard statements, signal words and symbols should appear on the label according to the classification of that chemical or mixture.

HCS Pictograms and Hazards










Health Hazard  <ul style="list-style-type: none"> • Carcinogen • Mutagenicity • Reproductive Toxicity • Respiratory Sensitizer • Target Organ Toxicity • Aspiration Toxicity 	Flame  <ul style="list-style-type: none"> • Flammables • Pyrophorics • Self-Heating • Emits Flammable Gas • Self-Reactives • Organic Peroxides 	Exclamation Mark  <ul style="list-style-type: none"> • Irritant (skin and eye) • Skin Sensitizer • Acute Toxicity (harmful) • Narcotic Effects • Respiratory Tract Irritant • Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder  <ul style="list-style-type: none"> • Gases Under Pressure 	Corrosion  <ul style="list-style-type: none"> • Skin Corrosion/Burns • Eye Damage • Corrosive to Metals 	Exploding Bomb  <ul style="list-style-type: none"> • Explosives • Self-Reactives • Organic Peroxides
Flame Over Circle  <ul style="list-style-type: none"> • Oxidizers 	Environment (Non-Mandatory)  <ul style="list-style-type: none"> • Aquatic Toxicity 	Skull and Crossbones  <ul style="list-style-type: none"> • Acute Toxicity (fatal or toxic)

Figure 1: Labelling of Chemicals Pictogram

4. Disposal of chemical residues in laboratories

- Acidic and highly toxic bases may in some cases be neutralized, diluted and (safely) discarded.
- Containers of suitable types and sizes must be obtained for collection of each class of waste prior to disposal.
- Chemical waste should only be stored temporarily and disposed of with as little delay as possible.
- Liquid containing heavy metals can be precipitated as their insoluble chlorides, sulfides and carbonates by treatment with hydrochloric acid, hydrogen or ammonium sulfide and ammonium carbonate, respectively. These precipitates can then be disposed of in appropriate containers.

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Head

Department of Chemical Sciences

IKG Punjab Technical University

Jalandhar

(e) Mercury should be avoided or substituted if there is no company available which offers recycling. It must be stored in a separate container. Mercury from broken thermometers can be detoxified as mercury amalgam.

(f) Chlorinated and non-chlorinated will be disposed-off in separate containers.

5. Disposal of solid waste in a monitored landfill

The disposal of chemical solid waste is carried out in properly designed and operated landfills. Controlled quantities of specific hazardous wastes may be broken down into non-hazardous substances, immobilized or adequately diluted by the physical, chemical and biochemical processes which naturally occur in landfills.

The location of a landfill for hazardous waste depends on technical criteria and should be decided upon only after assessment of its potential environmental impact.

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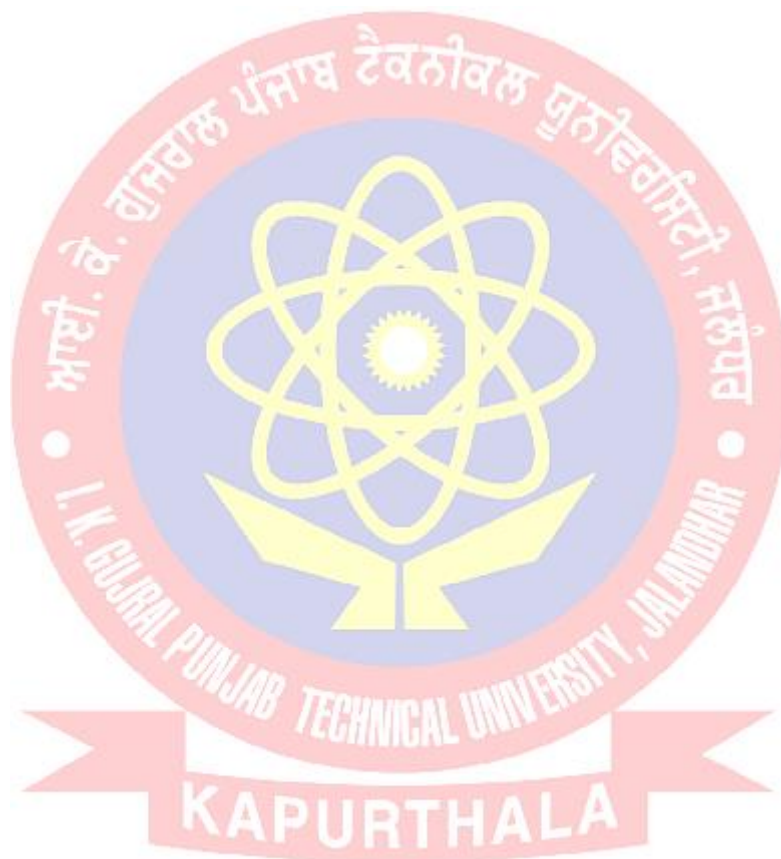
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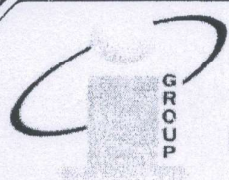
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- 5.Service Tax not applicable.

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A/c no : 025305003499
Bank Name : ICICI Bank Limited
Branch : Supertech Shopprix, C-134B, Sector-61,
Noida-201307, (U.P.)
FSC Code : ICIC0000253
PAN : AABC17221B

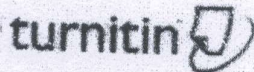
For iGroup Infotech India Pvt. Ltd.

Authorized Signatory
Pre-receipted

B-116, Sector-67, Noida-201301, Distt-Gautam Budh Nagar (U.P.)
Tel. : 0120-2484152, 9716892777, 9716892236 Fax : 0120 - 2484150

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42.



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Oakland, CA 94612
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Tax ID: PAN No. AAGCT4199L

Date: Oct 31, 2017
Invoice No.: IN11135643
Purchase Order No.: IKGPTU/REG/2700
Sales Order No.: SO739654
Due Date: Nov 30, 2017
Payment Terms: Net 30
Service Start: Oct 10, 2017
Service End: Oct 09, 2018

Trilok / Singh
18/02/17
6/2/18

Billed To	Account Administrator	Account Manager
Anirudh Pratap Singh BOYSCAST Fellow of DSTKapurthala Postdoc Penn State, USA IKG Punjab Technical University Jalandhar-Kapurthala Highway Kapurthala-144603 Punjab (India)	Singh, Dr. Anirudh P. Dean (Research, Innovation & Industrial Consultancy) e: dean.rio@ptu.ac.in t: +91 9478098005 f:	turnitinIndia SouthAsia e: asachdeva@turnitin.com t: 1-510-764-7612

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*Bill enclosed on
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TAX: IGST @18%

GST has been levied on the said invoice as per the provisions of Indian GST laws

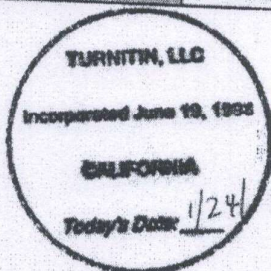
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Make your cheque payable to: Turnitin, LLC

vtid
Trilok (Trilok Chand)

Remit Cheque Payment to:	Turnitin, LLC Dept # 34258 P.O. Box 39000 San Francisco, CA 94139
Wire Instructions:	<p>1) Inform your originating bank to transfer \$(USD).</p> <p>BENEFICIARY BANK: Wells Fargo Bank BENEFICIARY COMPANY: Turnitin, LLC BENEFICIARY COMPANY'S ACCOUNT #: 6743267808 BENEFICIARY BANK/CO ABA ROUTING #: 121000248 (for Wire) and 121042882 (for ACH) BENEFICIARY BANK'S SWIFT CODE: WFBUS66</p> <p>2) Request that your originating bank reference your invoice number. If you do not have an invoice number, please request that your originating bank reference the name of your institution, and your location.</p> <p>3) Email ar@turnitin.com with the confirmation that the transaction has been completed.</p>

R&D Deptt.
Disp./Rct. No. 1791
Sent to Attn. (pay) 6-2-18

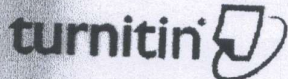


Fannie Hill
A/R

05/02/18
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17/2/18

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2



Turnitin India Education Private Limited
B - 116, Sector 67, Second Floor
Noida
India
201301
1-510-764-7600
GSTIN: 09AAGCT1132P1Z1
PAN: AAGCT1132P

Date: Dec 31, 2019
Invoice No.: IN11156943
Purchase Order No.: IKGPTU/REG4601
Sales Order No.: SO876456
Due Date: Jan 15, 2019
Payment Terms: Net 15
Service Start: Dec 17, 2018
Service End: Dec 16, 2019

TAX INVOICE

GSTIN 03AAAJ1130G2ZS Punjab Technical University Near Pushpa Gujral Science City, Jalandhar - Kapurthala Highway Kapurthala, Punjab 144601 India Our Ref: CN-166327 92627	Singh, Dr. Anirudh P Dean (Research, Innovation & Industrial Consultancy) e: deanric@ptu.ac.in t: +91 9478098005 f:	Neeraj Kataria e: nkataria@turnitin.com f: 1-510-764-7612
--	--	---

Name	Description	Amount
License Administration Fee	License Administration Fee	INR 209,366.70
Originality Check for Faculty/Research Scholar - Partial	Single Campus Subscription w/60 end user licenses - Instructor Profile or Faculty/Research Scholar	INR 237,282.26
Originality Check for Students	416 end user licenses (student profile for students - Includes Translated Matching, Integration, e-Rater	INR 72,580.46
	Subtotal	INR 519,229.42
	CGST - 0%	INR 0.00
	SGST - 0%	INR 0.00
	IGST - IN 18%	INR 93,461.29
	UTGST - 0%	INR 0.00
	Total	INR 612,690.71

Total Invoice Amount In Words: Six Hundred Twelve Thousand Six Hundred Ninety Point Seven One

USD\$: 8,779.20 = INR 612,690.71

Exchange Rate US \$1.00 = INR 69.7889

Bill entered on Page No. 85/394
On Dated 24/1/19

Invoice is system generated and thus does not need a signature

Make your cheque payable to: Turnitin India Education Private Limited

Turnitin India Education Private Limited B - 116, Sector 67, Second Floor Noida India - 201301

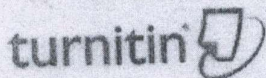
APD
17/07/19

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TurnitIndia Education Private Limited
B - 116, Sector 67, Second Floor
Noida
India
201301
1-510-764-7600
GSTIN: 09AAGCT1132P1Z1
PAN: AAGCT1132P

Date: Jan 14, 2020
Invoice No.: IND12000679
Purchase Order No.: IKGPTU/REG/R80/3325
Sales Order No.: SO936511
Due Date: Jan 29, 2020
Payment Terms: Net 15
Service Start: Dec 17, 2019
Service End: Dec 16, 2021

TAX INVOICE

Bill To	Billing Contact	Account Manager
GSTIN 03AAAJ1130G2ZS Punjab Technical University Near Pushpa Gujral Science City, Jalandhar- Kapurthala Highway Kapurthala, Punjab 144601 India Our Ref: CN-166327 92827	Singh, Dr. Anirudh P Dean (Research, Innovation & Industrial Consultancy) e: deanric@ptu.ac.in t: +91 9478098005 f:	Neeraj Kataria e: nkataria@turnitin.com f: 1-510-764-7612

Product Name	Product Description	Amount
TFS-GROWTH-RAMP	Feedback Studio: Single-campus Enterprise Subscription 982 EUL's 77 Instructors and 905 Students	INR 580,818.30
	Subtotal	INR 580,818.30
	CGST - 0%	INR 0.00
	SGST - 0%	INR 0.00
	IGST - IN 18%	INR 104,547.29
	UTGST - 0%	INR 0.00
	Total	INR 685,365.59

Total Invoice Amount In Words: Six Hundred Eighty Five Thousand Three Hundred Sixty Five Point Five Nine

USD\$: 9,676.00 = INR 685,365.59

Exchange Rate US \$1.00 = INR 70.8315

SAC code 998439

Invoice is system generated and thus does not need a signature

Make your cheque payable to: TurnitIndia Education Private Limited

Remit Cheque Payment to:	TurnitIndia Education Private Limited B - 116, Sector 67, Second Floor Noida India - 201301
Wire Instructions:	1) BENEFICIARY BANK: Citibank N.A. BENEFICIARY COMPANY: TurnitIndia Education Private Limited BENEFICIARY COMPANY'S ACCOUNT #: 0714093002 BENEFICIARY BANK BRANCH IFSC CODE: CITI0000002 BENEFICIARY BANK BRANCH MICR CODE: 110037002 BENEFICIARY BANK SWIFT CODE: CITIINBX 2) Request that your originating bank reference your invoice number. If you do not have an invoice number, please request that your originating bank reference the name of your institution and your location. 3) Email ar@turnitin.com with the confirmation that the transaction has been completed

Bel entered on Page No. 121/614
Dated - 07-02-2020

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442
E 14921/2020 R85
3/2/20

I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

Estd. Under Punjab Technical University Act, 1996
(Punjab Act No. 1 of 1997)

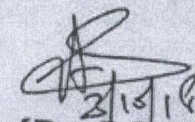
Ref. No. : IKGPTU/Reg/N/37-04

Dated : 03.10.2018

NOTIFICATION

As approved by Vice Chancellor IKGPTU, Regulation 2018 on Promotion of Academic Integrity and Prevention of Plagiarism in Higher Educational Institution notified by UGC vide D.O. No.F.1-18/2010(CPP-II) dated 6th August, 2018 is implemented I.K. Gujral Punjab university and its Constituent Campuses (copy attached).

This regulation will be effective from the date of issuance of this notification.

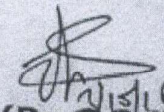

(Dr. S.S. Walia)
Registrar

Endst. No. IKGPTU/Reg/N/3705-3709

Dated: 03.10.2018

A copy is forwarded to the following for information:

1. I/C, O/o Vice Chancellor: For information of Vice Chancellor
2. All HODs (Teaching & Non-Teaching)
3. Director, IKGPTU Main Campus
4. Director, All Constituent Campuses
5. Dy. Controller (ITS): For uploading on website


(Dr. S.S. Walia)
Registrar

I. K. Gujral Punjab Technical University, Jalandhar
Jalandhar Kapurthala Highway, Near PushpaGujral Science City, Kapurthala - 144 603
Ph. No. 01822 - 662521, 662501 Fax No. : 01822-255506, 662526, Email : registrar@ptu.ac.in

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7. Similarity checks for exclusion from Plagiarism

The similarity checks for plagiarism shall exclude the following:

- i. All quoted work reproduced with all necessary permission and/or attribution.
- ii. All references, bibliography, table of content, preface and acknowledgements.
- iii. All generic terms, laws, standard symbols and standards equations.

Note:

The research work carried out by the student, faculty, researcher and staff shall be based on original ideas, which shall include abstract, summary, hypothesis, observations, results, conclusions and recommendations only and shall not have any similarities. It shall exclude a common knowledge or coincidental terms, up to fourteen (14) consecutive words.

8. Levels of Plagiarism

Plagiarism would be quantified into following levels in ascending order of severity for the purpose of its definition:

- i. Level 0: Similarities upto 10% - Minor similarities, no penalty
- ii. Level 1: Similarities above 10% to 40%
- iii. Level 2: Similarities above 40% to 60%
- iv. Level 3: Similarities above 60%

9. Detection/Reporting/Handling of Plagiarism

If any member of the academic community suspects with appropriate proof that a case of plagiarism has happened in any document, he or she shall report it to the Departmental Academic Integrity Panel (DAIP). Upon receipt of such a complaint or allegation the DAIP shall investigate the matter and submit its recommendations to the Institutional Academic Integrity Panel (IAIP) of the HEI.

The authorities of HEI can also take *suomotu* notice of an act of plagiarism and initiate proceedings under these regulations. Similarly, proceedings can also be initiated by the HEI on the basis of findings of an examiner. All such cases will be investigated by the IAIP.

10. Departmental Academic Integrity Panel (DAIP)

- i. All Departments in HEI shall notify a DAIP whose composition shall be as given below:
 - a. Chairman - Head of the Department
 - b. Member - Senior academician from outside the department, to be nominated by the head of HEI.
 - c. Member - A person well versed with anti plagiarism tools, to be nominated by the Head of the Department.

The tenure of the members in respect of points 'b' and 'c' shall be two years. The quorum for the meetings shall be 2 out of 3 members (including Chairman).
- ii. The DAIP shall follow the principles of natural justice while deciding about the allegation of plagiarism against the student, faculty, researcher and staff.
- iii. The DAIP shall have the power to assess the level of plagiarism and recommend penalty(ies) accordingly.
- iv. The DAIP after investigation shall submit its report with the recommendation on penalties to be imposed to the IAIP within a period of 45 days from the date of receipt of complaint / initiation of the proceedings.

11. Institutional Academic Integrity Panel (IAIP)

- i. HEI shall notify a IAIP whose composition shall be as given below:
 - a. Chairman - Pro-VC/Dean/Senior Academician of the HEI.
 - b. Member - Senior Academician other than Chairman, to be nominated by the Head of HEI.
 - c. Member - One member nominated by the Head of HEI from outside the HEI
 - d. Member - A person well versed with anti-plagiarism tools, to be nominated by the Head of the HEI.

The Chairman of DAIP and IAIP shall not be the same. The tenure of the Committee members including Chairman shall be three years. The quorum for the meetings shall be 3 out of 4 members (including Chairman).

- ii. The IAIP shall consider the recommendations of DAIP.
- iii. The IAIP shall also investigate cases of plagiarism as per the provisions mentioned in these regulations.

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- iv. The IAIP shall follow the principles of natural justice while deciding about the allegation of plagiarism against the student, faculty, researcher and staff of HEI.
- v. The IAIP shall have the power to review the recommendations of DAIP including penalties with due justification.
- vi. The IAIP shall send the report after investigation and the recommendation on penalties to be imposed to the Head of the HEI within a period of 45 days from the date of receipt of recommendation of DAIP/ complaint / initiation of the proceedings.
- vii. The IAIP shall provide a copy of the report to the person(s) against whom inquiry report is submitted.

12. Penalties

Penalties in the cases of plagiarism shall be imposed on students pursuing studies at the level of Masters and Research programs and on researcher, faculty & staff of the HEI only after academic misconduct on the part of the individual has been established without doubt, when all avenues of appeal have been exhausted and individual in question has been provided enough opportunity to defend himself or herself in a fair or transparent manner.

12.1 Penalties in case of plagiarism in submission of thesis and dissertations

Institutional Academic Integrity Panel (IAIP) shall impose penalty considering the severity of the Plagiarism.

- i. **Level 0: Similarities upto 10% - Minor Similarities, no penalty.**
- ii. **Level 1: Similarities above 10% to 40% -** Such student shall be asked to submit a revised script within a stipulated time period not exceeding 6 months.
- iii. **Level 2: Similarities above 40% to 60% -** Such student shall be debarred from submitting a revised script for a period of one year.
- iv. **Level 3: Similarities above 60% -** Such student registration for that programme shall be cancelled.

Note 1: Penalty on repeated plagiarism- Such student shall be punished for the plagiarism of one level higher than the previous level committed by him/her. In case where plagiarism of highest level is committed then the punishment for the same shall be operative.

Note 2: Penalty in case where the degree/credit has already been obtained - If plagiarism is proved on a date later than the date of award of degree or credit as the case may be then his/her degree or credit shall be put in abeyance for a period recommended by the IAIP and approved by the Head of the Institution.

12.2 Penalties in case of plagiarism in academic and research publications

- I. **Level 0: Similarities up to 10% - Minor similarities, no penalty.**
- II. **Level 1: Similarities above 10% to 40%**
 - i) Shall be asked to withdraw manuscript.
- III. **Level 2: Similarities above 40% to 60%**
 - i) Shall be asked to withdraw manuscript.
 - ii) Shall be denied a right to one annual increment.
 - iii) Shall not be allowed to be a supervisor to any new Master's, M.Phil., Ph.D. Student/scholar for a period of two years.
- IV. **Level 3: Similarities above 60%**
 - i) Shall be asked to withdraw manuscript.
 - ii) Shall be denied a right to two successive annual increments.
 - iii) Shall not be allowed to be a supervisor to any new Master's, M.Phil., Ph.D. Student/scholar for a period of three years.

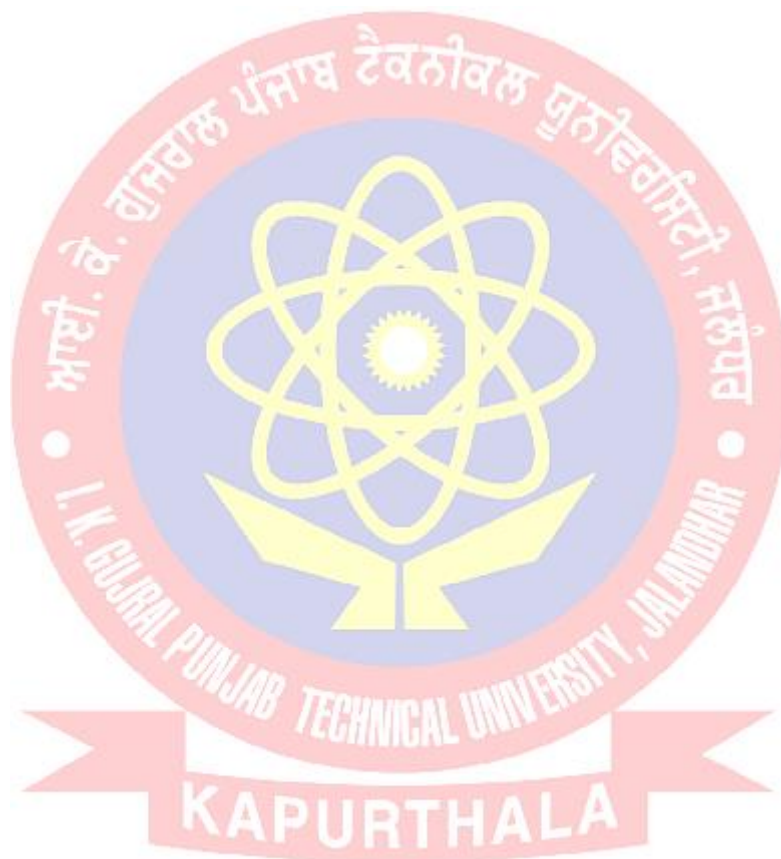
Note 1: Penalty on repeated plagiarism - Shall be asked to withdraw manuscript and shall be punished for the plagiarism of one level higher than the lower level committed by him/her. In case where plagiarism of highest level is committed then the punishment for the same shall be operative. In case level 3 offence is repeated then the disciplinary action including suspension/termination as per service rules shall be taken by the HEI.

Note 2: Penalty in case where the benefit or credit has already been obtained - If plagiarism is proved on a date later than the date of benefit or credit obtained as the case may be then his/her benefit or credit shall be put in abeyance for a period recommended by IAIP and approved by the Head of the Institution.

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3.4.1

Research Advisory Committee



Annexure-A

1. Composition and Responsibilities of Ph.D. Related Committees**(a) University Research Board (URB)**

- (i) University Research Board (URB) shall be the highest research body of the University for Monitoring, Modifying, Interpreting and Arbitrating on any kind of dispute pertaining to University Ph.D. regulations. In addition, this body shall be competent to propose and issue amendments / addendum to these regulations as per the need and to comply with UGC guidelines from time to time.
- (ii) URB shall be the final decision making body-
- (1) For any doubt or dispute about the interpretation of these Regulations
 - (2) For any other Research related issue referred to it by the competent authority.
 - (3) To modify / clarify / issue addendum to these regulations, if required at any time.
- (iii) Composition of University Research Board (URB) is as under

Composition of University Research Board (URB)		
(a)	Vice-Chancellor	Chairperson
(b)	Dean R&D	Member-Secretary
(c)	Dean of various Faculties	Member
(d)	Dean Academics	Member
(e)	All other Professors from various Departments of University	Member
(f)	Two Associate professors and two Assistant professors of the University by rotation according to seniority, provided they hold a Ph.D. degree	Member
(g)	Two experts holding Ph.D. degree from the affiliated colleges of the University to be nominated by the Vice-Chancellor.	Member

(b) Research Advisory Committee (RAC)

There shall be a Research Advisory Committee for each Ph.D. scholar. The

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Research Supervisor of the scholar shall be the Convener of this Committee. This committee shall have following structure

Composition of Research Advisory Committee		
(i)	Head of Concerned Department- IKGPTU Main campus as Chairman if the concerned teaching department does not exist in the University Campus Dean (R&D) or his nominee shall act as Chairman of the Research Advisory Committee.	Chairperson
(ii)	One subject expert nominated by the Vice Chancellor through Dean (Research & Development) from the list of experts with specialization submitted by the supervisor.	Member
(iii)	One external expert if required shall be co-opted on recommendation of Dean (R&D) by Vice-Chancellor.	Member
(iv)	Supervisor and Co-supervisor of the PhD student	Member-Secretary

2. This Committee shall have the following responsibilities:

- (a) To review the research proposal and finalize the topic of research;
- (b) To guide the research scholar to develop the study design and methodology of research and identify the course(s) that he / she may have to do.
- (c) To periodically review and assist in the progress of the research work of the research scholar.
 - (i) A research scholar shall appear before the Research Advisory Committee once in six months to make a presentation of the progress of his / her work for evaluation and further guidance. The six monthly progress reports shall be submitted by the Research Advisory Committee to the University with a copy to the research scholar.
 - (ii) In case the progress of the research scholar is unsatisfactory, the Research Advisory Committee shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement these corrective measures, the Research Advisory Committee may recommend to the University with specific reasons for cancellation of the registration of the research scholar.



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10. Course Work

All candidates admitted to the Ph.D programme shall be required to complete the Ph.D course work, proposed by the Supervisor keeping in view the candidate's areas of research in the University Teaching Department. Pre Ph.D course work will be of 15 credits and shall be offered on regular basis at IKGPTU campus.

Structure of course work is as under:-

Sr. No.	Nature of Course	Name of course	Credits	Remarks
1.	Core	1. Research Methodology	4	The syllabus of RM should be formulated faculty wise such as Engineering, Sciences Management / Humanities and Life sciences
		2. Subject related theory paper	4	Discipline specific related to Advancements in theoretical methods for research.
		3. Presentation	3	Discipline specific
2.	Interdisciplinary	4. Elective	4	From list of subjects from allied fields
Total Minimum credits			15	

- The candidate will have to clear Courses within the first two semesters as per the programme of the Department.
- Direct fellowship awardees or candidates registered for Ph.D. during the middle of the semester will take up Course work in the following semester.
- The syllabus for Pre-Ph.D. Course work, not covered in the ongoing PG curriculum, will be drawn by the Board of Studies or RAC subject to the approval by BoS and highest academic body of the University.
- An attendance less than the mandatory 75% (including 10% attendance benefit on medical grounds) in the Course work shall attract cut in the scholarship / fellowship.

11. Course Completion Criterion

- A Ph.D. scholar has to obtain a minimum of 55% of marks or its equivalent grade in the UGC 7-point scale (or an equivalent grade/

DFA

Ms. Harleen Kaur
H/ No. 1, New Friends Colony,
Ferozepur City,
Ferozepur

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	<i>Electronics & Communication Engineering</i>
Name of Supervisor	<i>Dr. Narwant Singh Grewal, Assistant Professor, Guru Nanak Dev Engineering College, Ludhiana</i>
Name of Co-Supervisor	<i>NA</i>
Registration No.	<i>1905005</i>
Date of Registration	<i>17-09-2019</i>
Examination Roll No.	<i>1935212</i>
Tentative Topic	<i>Inter Satellite Optical Wireless Communication</i>

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,

Associate Dean (R&D)

CC

1. Supervisor
2. HOD, Electronics & Communication Engineering

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I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY, JALANDHAR

Formerly known as
PUNJAB TECHNICAL UNIVERSITY, JALANDHAR
Jalandhar-Kapurthala Highway, Jalandhar

SCHEME: Ph.D in Faculty of Engineering (Electronics and Communication Engineering), Semester-1

INSTITUTE: GNDEC, Ludhiana

NOTIFICATION NO: PTU/Exam/Reg/28121 Dated : 06 Mar 20

EXAMINATION: Nov-2019

RESULT TYPE: Regular

S.No.	Roll No	Name Father Name	Detail of Grade										SGPA	Credits (Earned)	Result Status	Remarks
1	1935212	HARLEEN KAUR	77352 4	77366 4	77394 4	PHP-401 3							8.27	15	Pass	
			A	A	A+	A										
2	1935213	CHAHAT JAIN	77352 4	77366 4	77394 4	PHP-401 3							8.00	15	Pass	
			B+	A	A+	A										

Ordinance & Scheme seen, the result may be declared and published please Published

EDP CELL

Prepared by

Checked by

Assistant Registrar(E)

Deputy Controller(Exam)

Controller of Examinations

Ab / Absent UMC - Unfair Mean Case

Int - Internal Examination

Ext - External Examination

RL - Result Late

Bold-Means, Student Appeared in Reappear/Revaluation Exam. Nov-2019

Structure of grading academic performance

Grade	O	A+	A	B+	B	C	P	F	Ab	E	I	SIUN
Qualitative Meaning	Outstanding	Excellent	Very Good	Good	Above Average	Average	Marginal/Pass	Failed/Reappear	Absent	Detained	Incomplete	Satisfactory/Not-Satisfactory
Grade Point	10	9	8	7	6	5	4	0	-	0	-	-

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IKG Punjab Technical Univ.

CGPA in a point scale) in the course work in order to be eligible to continue in the programme.

- (b) After successful completion of course work, a letter of confirmed registration will be issued by Dean (Research & Development)
- (c) The prescribed Course work shall be completed within twelve months from the date of enrolment / pre-registration. In case a candidate fails, he / she may request another chance recommended by supervisor to complete the Course work within six months with extra fee as applicable. After this any further chance may be granted by VC with extra fees as applicable.

12. Monitoring and Evaluation of Ph.D work

- (a) After the confirmed registration a research scholar shall appear before the Research Advisory Committee once in six months to make a presentation of the progress of his / her work for evaluation and further guidance till the pre-Ph.D. thesis presentation. The six monthly progress reports shall be submitted by the Research Advisory Committee to the Dean R & D with a copy to the research scholar.
- (b) In case the progress of the research scholar is unsatisfactory, the Research Advisory Committee shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement these corrective measures, the Research Advisory Committee may recommend to the Dean (R&D) with specific reasons for cancellation of the registration of the research scholar.
- (c) After admission to Ph.D Programme the student in consultation with the Supervisor may propose research proposal / Title for Ph.D. thesis within one year to RAC. However, the final title for the Ph.D thesis shall be decided at the time of the pre-thesis / submission presentation by RAC.

13. Cancellation of Enrollment / Registration

The enrolment / registration of the student will be cancelled, if,

- (a) The candidate does not enroll for Course work in the ongoing / immediately following semester (if admitted mid-semester) on her / his admission to Ph.D. without specifying any reason.
- (b) The candidate fails to obtain the required CGPA / marks in Course work as per rules.
- (c) The progress of the candidate is found Unsatisfactory by the Supervisor and the RAC as per clause 11(b).
- (d) The candidate does not pay the fee / dues in time and even in extended period with late fee, as applicable.
- (e) The candidate commits to plagiarism or unethical practices in research.
- (f) The candidate indulges in activities of indiscipline, and remains absent

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Formerly known as
PUNJAB TECHNICAL UNIVERSITY, JALANDHAR
Jalandhar-Kapurthala Highway, Jalandhar

SCHEME: Ph.D in Faculty of Engineering (Electronics and Communication Engineering), Semester-I

INSTITUTE:GNDEC, Ludhiana

NOTIFICATION NO: PTU/Exam/Reg/28121 Dated : 06 Mar 20

EXAMINATION: Nov-2019

RESULT TYPE: Regular

S.No.	Roll No	Name Father Name	Detail of Grade										SGPA	Credits (Earned)	Result Status	Remarks
1	1935212	HARLEEN KAUR	77362 4	77366 4	77394 4	PHP-401 3							8.27	15	Pass	
			A	A	A+	A										
2	1935213	CHAHAT JAIN	77362 4	77366 4	77394 4	PHP-401 3							8.00	15	Pass	
			B+	A	A+	A										

Ordinance & Scheme seen, the result may be declared and published please Published

EDP CELL

Prepared by

Checked by

Assistant Registrar(E)

Deputy Controller(Exam)

Controller of Examinations

Ab / Absent UMC - Unfair Mean Case

Int - Internal Examination

Ext - External Examination

RL - Result Late

Bold-Means, Student Appeared in Reappear/Revaluation Exam. Nov-2019

Structure of grading academic performance

Grade	O	A+	A	B+	B	C	P	F	Ab	E	I	SIUN
Qualitative, Meaning	Outstanding	Excellent	Very Good	Good	Above Average	Average	Marginal/Pass	Failed/Reappear	Absent	Detained	Incomplete	Satisfactory/Not-Satisfactory
Grade Point	10	9	8	7	6	5	4	0	.	0	.	.

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Jalandhar

Student Profile (dashboard.php)

Harleen Kaur



Admissions



Synopsis



Users



Settings



Reports

Search anything here...

sr. Clerk

Home (dashboard.php) > Applications (applications.php) > Student's Profile

Application Form

(View) (applications.php?action=preview&stuid=Nzk2OA==)

Student's Details

Overall Stat

Interview Schedule

(View) (applications.php?action=interviewslip&stuid=Nzk2OA==)

Interview Result

(View) (applications.php?action=interview_results&stuid=Nzk2OA==)

Provisional Form

(View) (provisional.php?action=view&id=Nzk2OA==)

Provisional Allotment Date

HARLEEN KAUR' FEES DETAILS STUDENT'S FORM (STU_FEES.PHP?
STUDENT=NXLQDMIWNTHXCZHXQKZYDKPNQMTHTQT09)

Paid Fees

Fee Name	Date	Session	Transaction- ID	Payment- ID	Fee Amount	Late Fee	Total	Receipt
Admission Fees	04- 06- 2018	Summer 2018	4174328	194076398	2000	0	2000	(View Receipt) (payment_receipt.php? tns=NjQwMTg=)
Provisional Fees	17- 09- 2019	Summer 2019-20 (Autonomous Colleges)	2106860	273838255	55000	0	55000	(View Receipt) (payment_receipt.php? tns=NzA3NDI=)
Semester Fee	05- 03- 2020	Jan 2020- June 2020	863418	306587057	6000	0	6000	(View Receipt) (payment_receipt.php? tns=NzIzNjY=)
Semester Fee	06- 09- 2020	July 2020-Dec 2020	9826336	352789806	6000	0	6000	(View Receipt) (payment_receipt.php? tns=NzkwMDQ=)

Pending Fees

Fee Name	Session	Fee Amount	Late Fee	Total	Action
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Design and Developed by Walkwel Technology (<http://www.walkwel.in>)

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(b) Research Advisory Committee (RAC)

There shall be a Research Advisory Committee for each Ph.D. Scholar. The Research Supervisor of the scholar shall be the Convener of this Committee. This committee shall have following structure

Composition of Research Advisory Committee		
(i)	Head of Concerned Department- IKGPTU Main campus as Chairman if the concerned teaching department does not exist in the University Campus Dean (R&D) or his nominee shall act as Chairman of the Research Advisory Committee.	Chairperson
(ii)	One subject expert nominated by the Vice Chancellor through Dean (Research & Development) from the list of experts with specialization submitted by the supervisor.	Member
(iii)	One external expert if required shall be co-opted on recommendation of Dean (R&D) by Vice-Chancellor.	Member
(iv)	Supervisor and Co-supervisor of the PhD student	Member-Secretary

2. This Committee shall have the following responsibilities:

- (a) To review the research proposal and finalize the topic of research;
- (b) To guide the research scholar to develop the study design and methodology of research and identify the course(s) that he / she may have to do.
- (c) To periodically review and assist in the progress of the research work of the research scholar.
 - (i) A research scholar shall appear before the Research Advisory Committee once in six months to make a presentation of the progress of his / her work for evaluation and further guidance. The six monthly progress reports shall be submitted by the Research Advisory Committee to the University with a copy to the research scholar.
 - (ii) In case the progress of the research scholar is unsatisfactory, the Research Advisory Committee shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement these corrective measures, the Research Advisory Committee may recommend to the University with specific reasons for cancellation of the registration of the research scholar.

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IKG Punjab Technical Univ

Re: Expert list for composition of Research Advisory Committee (Ms. Harleen Kaur, Registration No. 1905005)

Dr. Narwant Singh Grewal <narwant@gndec.ac.in>

Thu 17-12-2020 14:04

To: IKGPTU Ph.D. Admissions <ptuphdadmissions@ptu.ac.in>

1 attachments (39 KB)

Phd Panel-harleen.doc;

kindly find attached the required panel of experts for Ms. Harleen Kaur, Registration No. 1905005.

--

Dr. Narwant Singh Grewal

Assistant Professor

Department of Electronics and Communication Engineering

Guru Nanak Dev Engineering College,

Ludhiana

On 2020-12-15 16:48, IKGPTU Ph.D. Admissions wrote:

> Respected Sir,

>

> Kindly send a list of 6 experts with detailed information (i.e. Name,
> Designation, Branch, Area of specialization, College Name, address,
> email id, mobile number) for finalizing the composition of Research
> Advisory Committee in the case of candidate Ms. Harleen Kaur,
> Registration No. 1905005.

>

> Kindly send the required information on this email by 16-12-2020.

>

> _ _ _

> _Ph.D. Admission cell_ _ _

> _I.K Gujral Punjab Technical University_ _ _

> _Jalandhar Kapurthala Highway_ _ _

> _Kapurthala (Punjab)_ _ _

>

> _ _ _

> _For any query, you may contact at 01822282558_ _ _

>

> _ _ _

> _Save Paper! Save Trees! Save Future!_

>


> _ _ _

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Panel of External
(Ms. Harleen Kaur, Registration No. 1905005)

Sr. No	Name of External Examiner	Designation/Department	Complete Postal Address	Email-id	Mobile	Area of specialization
1.	Dr. Manjit Singh Bhamra	Professor/ECE	ECE department, UCOE, Punjabi university, NH 64, Urban Estate Phase II, Patiala, Punjab. 147002	manjitsingh_manjit@rediffmail.com manjitsingh@gmail.com	9501010571	Optical communication
2.	Dr. Ajay Pal Singh	Professor/ECE	Deptt. of Electronics & Communication Engineering Sant Longowal Institute of Engineering & Technology, Longowal	ajaypal@slie.ac.in	9417106644	Broad band communication
3.	Dr. Jagtar Singh	Professor/ECE	Deptt. of Electronics & Communication Engineering, YCOE, Punjabi Uni. Guru Khashi Campus, Talwandhi Sabo	jagtarsivian@yahoo.com	9855288854	Optical communication
4.	Dr. M.L. Singh	Professor/ECE	Deptt. of Electronics technology. Guru Nanak Dev University, Amritsar	mlsingh.ece@gndu.ac.in	9872223127	Optical comm
5.	Dr. Munish Vashishath	Professor/ECE	Department of Electronics Engineering, JC Bose university of science and technology YMCA, Faridabad	munish.vashishath@gmail.com munishvashishath@jcboseust.ac.in	9873762868	Electronics devices
6.	Dr. Amit Garg	Professor/ECE	DCR university of science and technology, Murthal, Sonapat	garg_amit03@yahoo.co.in	9877294039 8901124120	Optical communication systems and networks


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R&D Deptt.
IKG Punjab Technical Univ.
Jalandhar

(Department of Research & Development)

Note

Deptt.

Disp/Rct. No. 918 Dt. 15-11-17

Sent to.....

Subject- Regarding constitution of Research Advisory Committee (RAC).

As per UGC guidelines 2016, clause 3 (Copy attached at Annexure 'A') and IKGPTU PhD regulations 2016 (Copy attached at Annexure 'B') "There shall be a Research Advisory Committee for each Ph.D. scholar."

This committee shall have following structure:-

Composition of Research Advisory Committee		
(i)	Head of Concerned Department- IKGPTU Main campus as Chairman if the concerned teaching department does not exist in the University Campus Dean (R&D) or his nominee shall act as Chairman of the Research Advisory Committee.	Chairperson
(ii)	One subject expert nominated by the Vice Chancellor through Dean (Research & Development) from the list of experts with specialization submitted by the supervisor.	Member
(iii)	One external expert if required shall be co-opted on recommendation of Dean (R&D) by Vice-chancellor.	Member
(iv)	Supervisor and Co-supervisor of the PhD student	Member-Secretary

Submitted.

Senior Assistant

In view of 'A' One subject expert and external expert may be nominated by the Hon'ble Vice Chancellor with the recommendations of Dean (R&D).

Assistant Registrar (R&D)

The Dean (R&D) may be authorised to nominate experts for RAC on behalf of Hon'ble Vice Chancellor.] A

Dean (R&D)

Hon'ble Vice Chancellor

Dean (R&D)

08/12/17

Dir. (R&D)

AK(R&D)

DEAN

R&D Deptt.

IKG Punjab Technical Univ.
Jalandhar

IKG Punjab Technical University
Vice Chancellor Office

Chd. No. 941 Dt. 07/12/17

Dean (R&D)

Registrar Office

No. 7472 Dt. 20.11.17

R&D Deptt.

Disp/Rct. No. 918 Dt. 15-11-17

17

Submitted

Sent to.....

Assistant Registrar (R&D)

Dean (R&D)

Hon'ble Vice Chancellor

Dir. (R&D)

AK(R&D)

ivSw:- ਪੀ. ਐਚ. ਡੀ. ਸਿਖਿਆਰਥਣ Ms. Harleen Kaur, Prov. Reg. No. 1905005 ਵਲੋਂ ਕੋਰਸ ਵਰਕ ਪੂਰਾ ਕਰਨ ਉਪਰੰਤ ਸਿਖਿਆਰਥਣ ਨੂੰ Confirmation letter ਜਾਰੀ ਕਰਨ ਅਤੇ ਉਸਦੇ supervisor ਤੋਂ expert list ਮੰਗਵਾਉਣ ਦੀ ਪ੍ਰਵਾਨਗੀ ਲੈਣ ਸੰਬੰਧੀ]

ਉਪਰੋਕਤ ਵਿਸ਼ੇ ਦੇ ਸੰਬੰਧ ਵਿੱਚ ਆਪ ਜੀ ਦੇ ਧਿਆਨ ਵਿੱਚ ਲਿਆਂਦਾ ਜਾਂਦਾ ਹੈ ਕਿ ਪੀ. ਐਚ. ਡੀ. ਕੋਰਸ ਵਰਕ ਪੂਰਾ ਕਰਨ ਵਾਲੇ ਸਿਖਿਆਰਥੀਆਂ ਲਈ Confirmation letter ਜਾਰੀ ਕਰਨ ਸੰਬੰਧੀ IKGPTU Ph. D regulations 11 (b) ਹੇਠ ਲਿਖੇ ਅਨੁਸਾਰ ਹਨ (ਕਾਪੀ ਝੰਡੀ 'ਉ' ਤੇ ਨੱਥੀ ਹੈ):-

"After successful completion of course work, a letter of confirmed registration will be issued by Dean (Research & Development)"

ਇਸ ਲਈ IKGPTU Ph. D regulations 2016 ਅਨੁਸਾਰ ਪੀ. ਐਚ. ਡੀ. ਸਿਖਿਆਰਥਣ Ms. Harleen Kaur, Prov. Reg. No. 1905005 ਵਲੋਂ ਕੋਰਸ ਵਰਕ ਪੂਰਾ ਕਰਨ ਤੇ Confirmation letter ਜਾਰੀ ਕੀਤੀ ਜਾਣੀ ਬਣਦੀ ਹੈ। (ਕੋਰਸ ਵਰਕ ਦੇ ਨਤੀਜੇ ਦੀ ਕਾਪੀ ਝੰਡੀ 'ਅ' ਤੇ ਨੱਥੀ ਹੈ)

ਆਪ ਜੀ ਦੇ ਧਿਆਨ ਵਿੱਚ ਵਿਸ਼ੇਸ਼ ਤੌਰ ਤੇ ਲਿਆਂਦਾ ਜਾਂਦਾ ਹੈ ਕਿ ਇਸ ਵਾਰ ਪ੍ਰੀਖਿਆ ਵਿਭਾਗ ਵਲੋਂ ਪੀ. ਐਚ. ਡੀ. ਕੋਰਸ ਵਰਕ ਦੇ ਨਤੀਜੇ ਹੇਠ ਲਿਖੇ changes ਅਨੁਸਾਰ ਐਲਾਣੇ ਗਏ ਹੈ:-

1. ਪ੍ਰੀਖਿਆ ਵਿਭਾਗ ਵਲੋਂ ਪੀ. ਐਚ. ਡੀ. ਕੋਰਸ ਵਰਕ ਦੇ ਨਤੀਜੇ ਰੋਲ ਨੰਬਰ ਦੀ ਨਵੀਂ series ਨਾਲ ਐਲਾਣੇ ਗਏ ਹੈ ਜਿਸ ਸੰਬੰਧੀ ਪ੍ਰੀਖਿਆ ਵਿਭਾਗ ਵਲੋਂ eoffice file no. I-15/602/2020-R and D ਵਿੱਚ ਲਿਖਿਆ ਗਿਆ ਹੈ।

2. ਪ੍ਰੀਖਿਆ ਵਿਭਾਗ ਵਲੋਂ ਪੀ. ਐਚ. ਡੀ. ਕੋਰਸ ਵਰਕ ਦੇ ਨਤੀਜੇ subject code wise ਵੀ ਐਲਾਣੇ ਗਏ ਹੈ।

Confirmation letter ਜਾਰੀ ਕੀਤੇ ਜਾਣ ਤੋਂ ਬਾਅਦ ਸਿਖਿਆਰਥਣ ਲਈ Research Advisory Committee ਦਾ ਵੀ ਗਠਨ ਕੀਤਾ ਜਾਣਾ ਹੈ ਜਿਸ ਲਈ ਸਿਖਿਆਰਥਣ ਦੇ supervisors ਤੋਂ expert list ਮੰਗਵਾਈ ਜਾਣੀ ਵੀ ਬਣਦੀ ਹੈ।

ਕੋਸ ਸਿਖਿਆਰਥਣ ਨੂੰ Confirmation letter ਜਾਰੀ ਕਰਨ ਲਈ ਖਰੜਾ ਪ੍ਰਵਾਨ ਕਰਨ ਅਤੇ ਉਸਦੇ supervisors ਤੋਂ expert list ਮੰਗਵਾਉਣ ਲਈ ਈ-ਮੇਲ ਭੇਜਣ ਦੀ ਪ੍ਰਵਾਨਗੀ ਹਿੱਤ ਪੇਸ਼ ਹੈ, ਜੀ। (ਜਾਰੀ ਕੀਤੀ ਜਾਣ ਵਾਲੀ Confirmation

DEAN
R&D Deptt.
IKG Punjab Technical Univ

Subject: Regarding constitution of Research Advisory Committee (Harleen Kaur, Regd. No. 1905005).

Discipline	Electronics & Communication Engineering
Name of the candidate	Harleen Kaur
Registration No.	1905005
Examination Roll No.	1935212
Date of Registration	17-09-2019
Course Work semester	Aug-Dec 2019
Date and year of passing the Course Work	06-03-2020 (Result attached at Annexure- <u>A</u>)
Fees detail attached at	Annexure- <u>B</u>
Date of Confirmation of registration	16-12-2020

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IKG D... ..

As per IKGPTU Ph. D regulations 2016, *there shall be a Research Advisory Committee for each Ph. D scholar. (Annexure -C)*

As per IKGPTU Ph. D regulations 2016:

"One subject expert nominated by the Vice Chancellor through Dean (Research & Development) from the list of experts with specialization submitted by the supervisor and One external expert if required shall be co-opted on recommendation of Dean (R&D) by Vice-Chancellor". (Annexure-D)

The list of 6 subject experts is attached at Annexure-E .

The Dean (R&D) has been authorised to nominate experts by then Hon'ble Vice Chancellor on 07-12-2017. (Annexure-F)

The structure of the proposed committee is as below:

Composition of Research Advisory Committee			
(i)	HOD, Electronics & Communication Engineering Department	Chairperson	Dr. Avtar Singh Buttar, Associate Professor, IKGPTU Main Campus, Kapurthala
(ii)	Subject Expert	Member	
(ii)	External Expert	Member	
(i v)	Supervisor	Member-Secretary	Dr. Narwant Singh, Assistant Professor, Guru Nanak Dev Engineering College, Ludhiana

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I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

Estd. Under Punjab Technical University Act, 1996
(Punjab Act No. 1 of 1997)

Ref. No. : IKGPTU/Reg/NF/2137

Dated : 16.07.2021

NOTIFICATION

Sub: Constitution of University Research Board (URB) of IKGPTU.

As approved by Vice Chancellor, I.K. Gujral Punjab Technical University is pleased to constitute the University Research Board (URB) for a period of two years from the date of notification.

University Research Board			
(a)	Vice Chancellor	Vice Chancellor, I.K. Gujral Punjab Technical University, Kapurthala	Chairperson (ex-officio)
(b)	Dean (R&D)	Dean (Research & Development), IKGPTU Kapurthala	Member Secretary (ex-officio)
(c)	Dean of various Faculties	Faculty of Engineering & Technology Dr. Vikas Chawla, Professor, Department of Mechanical Engineering, IKGPTU Kapurthala	Members
		Faculty of Applied Sciences Dr. Subodh Kumar, Professor, Department of Chemistry, GNDU, Amritsar	
		Faculty of Management Sciences Dr. Sanjay Kaushik, Professor, University Business School, Panjab University Chandigarh	
		Faculty of Media & Mass Communication Dr. Sarabjit Singh, Professor, Department of Agriculture Journalism, Languages & Culture, Punjab Agriculture University, Ludhiana	
		Faculty of Hospitality, Tourism & Travel Management Dr. Prashant Kumar Gautam, Professor University Institute of Hotel & Tourism Management, Panjab University, Chandigarh	

I. K. Gujral Punjab Technical University, Jalandhar
Jalandhar Kanurthala Highway. Near Pushna Guiral Science City, Kapurthala - 144 603

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		Faculty of Lifestyle Design Dr. Malini Divakala , Professor, NIFT, New Delhi	
		Faculty of Architecture Dr. Minakshi Jain, Director, SPA Vijaywara	
		Faculty of Social & Human Sciences Dr. Joga Singh, Professor, Department of Linguistics, Punjabi University, Patiala	
		Faculty of Teacher Training & Education Dr. Niraj Bala, Professor, NITTTR, Chandigarh	
		Faculty of Pharmaceutical Sciences Dr. Rajesh Goyal, Department of Pharmaceutical Sciences and Drug Research, Punjabi University, Patiala	
(d)	Dean Academics	Dean (Academics), IKGPTU Kapurthala	Member (ex-officio)
(e)	All other Professor from various department of University	1. Dr. Y. S. Brar 2. Dr. Neel Kanth Grover 3. Dr. Ashish Arora 4. Dr. Harmeen Soch 5. Dr. Prarbhjot Kaur 6. Dr. Monika Sachdev 7. Dr. Amit Sarin	Member
(f)	Two Associate Professor & Two Assistant Professor of University by rotation according to Seniority Provided	1. Dr. Avtar Singh Buttar, Associate Prof. 2. Dr. Hitesh Sharma, Associate Prof. 3. Dr. Pooja Mehta, Assistant Prof. 4. Dr. Chander Prakash , Assistant Prof.	Member
(g)	Two Experts holding PhD Degree from the affiliated college of University to be nominated by the Vice -Chancellor	1. Dr. Rajesh Bagga, Director, Apeejay Institute, Jalandhar 2. Dr. Sehijpal Singh, Principal, GNDEC, Ludhiana	Member

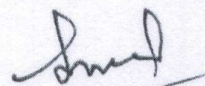

Quorum:

Quorum of the University Research Board Shall be 50% of the total members including Chairperson.

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Term:

The term of URB is for the period of 02 years as above or till they hold above official position whichever is earlier.

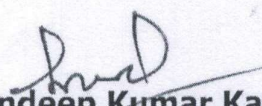


(Sandeep Kumar Kazal)
Registrar 

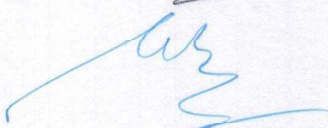
Endst. No. IKGPTU/Reg/NF/2138-2142

Dated: 16.07.2021

A copy is forwarded to the following officers for information please.

1. Vice Chancellor Secretariat: for information of Hon'ble Vice Chancellor
2. All HoDs/ Incharge (Non-Teaching)
3. Director (Main & Other Campuses): To inform all Deputy Dean (Faculty), HoDs (Teaching) and Directors/Incharge (Constituent Campuses)
4. All concerned
5. Incharge (ITS): For upload of notice in the Notice Board of University website


(Sandeep Kumar Kazal)
Registrar 


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R&D Deptt.
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I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY

Estd. Under Punjab Technical University Act, 1996

(Punjab Act No. 1 of 1997)

Ref. No. : IKGPTU/Reg/N/3802

Dated : 07.12.2018

NOTIFICATION

Sub: **Re-constitution of University Research Board (URB)..**

In supersession to Notification No. IKGPTU/Reg/N/1303 dated 05-06-2017 and as approved by the Vice Chancellor The following University Research Board (URB) is re-constituted for 02 Years:

Nomenclature of University Research Board(URB) Composition	Name	Designation/ Faculty
Chairperson	Prof. (Dr.) Ajay Kumar Sharma	Vice-Chancellor
Member-Secretary	Dr. A.P. Singh	Dean (R&D)
Dean of various Faculties	Prof. Piar Chand, Prof. NIT, Hamirpur, HP .	Faculty of Applied Art & Social Science
	Prof. Paras Ram, Prof. in Maths, NIT Kurukshetra	Faculty of Applied Sciences
	Prof. Neena Sinha, Prof. GGSIPU, Delhi	Faculty of Business & Service, Management
	Prof. A.K. Saroha, Deptt. of Chemical Engg., IIT, Delhi	Faculty of Chemical & Biotechnology
	Prof. Ravi Kumar Sharma, Prof., NIT Hamirpur, HP	Faculty of Civil & Environmental Engineering
	Prof. Paramjit Singh, GZSCET, Bathinda	Faculty of Computer Science, Engineering & Allied
	Prof. Vinod Kapoor, Director, Mahatma Gandhi Govt. Engg., Camp Office J.N. Govt. Engg. College, Sunder Nagar, HP	Faculty of Electrical, Electronics & Allied Engineering
	Dr. Bhupender Singh Katkar, Professor and Chairperson, Department of Food Technology, Guru Jambheshwar University of Science & Technology, Hisar	Faculty of Food Science & Technology
	Prof. Rajesh Kr. Sharma, Prof., Punjabi University, Patiala	Faculty of Languages

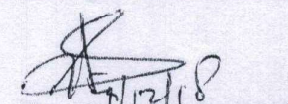
I. K. Gujral Punjab Technical University, Jalandhar
Jalandhar Kapurthala Highway, Near Pushpa Gujral Science City, Kapurthala - 144 603
Ph. No. 01822 - 662521, 662501 Fax No. : 01822-255506, 662526, Email : registrar@ptu.ac.in

Page 1 of 2

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

	Prof. Geeta Joshi, Prof. Deptt. of Law, Punjab University, Chandigarh	Faculty of Law
	Prof. Adarsh Pal Vig, Prof., Deptt. of Botanical & Env. GNDU, Amritsar	Faculty of Life Science
	Prof. Mohd. Suhaib, Prof., Jamia Milia Islamia, New Delhi	Faculty of Mechanical & Allied Engineering
	Prof. Subheet Kr. Jain, Prof., Deptt. Of Pharmaceutical Sciences, GNDU, Amritsar	Faculty of Pharmaceutical Sciences & Allied
	Prof. Minakshi Jain, Director, SPA Vijaywara	Faculty of Planning & Architecture
	Prof. Malini Divakala, NIFT, New Delhi	Faculty of Textile and Fashion Technology
Dean Academics	Dr. Balkar Singh	Director, Academics, IKGPTU
All other Professors from various Departments of University	Dr. Yadwinder Singh Brar	Professor
	Dr. Vikas Chawla	Professor
	Dr. Prabhjot Kaur	Professor
Two Associate professors and two Assistant professors of the University	Dr. Harmeen Soch	Associate Professor
	Dr. Avtar Butter	Associate Professor
	Dr. Mandeep Kaur	Assistant Professor
	Dr. Chander Parkash	Assistant Professor
Two experts holding Ph.D. degree from the affiliated colleges of the University	Dr. Manoj Kumar	Principal, DAVIET, Jalandhar
	Dr. Rajesh Bagga	Director, Apeejay College of Management, Jalandhar

Quorum of committee is 50% of the total members and minimum 03 meetings of committee must be conducted in a year.



(Dr. S.S. Walia)
Registrar

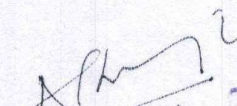
Endst. No. IKGPTU/REG/N/3803-3807

Dated: 67.12.2018

A copy is forwarded to the following officers for information please.

1. I/c Secretariat, O/o Vice Chancellor: For information of Vice Chancellor
2. All HODs (Teaching & Non Teaching)
3. Director (Main Campuses)
4. All Concerned
5. Deputy Controller (ITS): For upload on website


(Dr. S.S. Walia)
Registrar


19/12/18
AR

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

