G. H. Raisoni College of Engineering, Nagpur
(An Autonomous Institution under UGC Act 1956 &
Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur)
CRPF Gate No.3, Digdoh Hills, Hingana Road, Nagpur-16.

Course Work
on
Research Methodology
&
Quantitative Methods of Computer Applications

(For the Ph.D students of Engineering & Technology)

02/04/2012 to 13/04/2012

Looking towards the Direction No.10 of 2011, the course work is compulsory. The course work must include topic on research methodology, quantitative methods of computer application, seminars, review of published work in the relevant field. Taking the cognizance of this, R&D cell of G. H. Raisoni College of Engineering, Nagpur is organizing this course work for the Ph.D Candidates applied for registration in different departments under the Faculty of Engineering and Technology. This course work is mandatory for the students to attend. This course work shall be applicable to all the Ph.D candidates applied for registration and are governed by Direction No.10 of 2011 (Registration Cycle: July 2010, January 2011, July 2011, & January 2012).

Objective:

The objective of this course work is to enable researchers to understand and appreciate the nature, complexities and challenges of research and equip them with knowledge and skills that will enable them to choose between available techniques or methods of analysis of data. The course work will help the candidates to interpret results with reference to the objectives of a particular topic of investigation and the nature and limitations of data.

Registration

Registration is free but the Application in the attached form duly signed by the Ph.D candidate should reach the respective departmental R&D coordinators by email or hard copy on or before 20th March **2012**.

Dean (R&D)

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Course Work

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Research Methodology

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(For the Ph.D students of Engineering & Technology)

02/04/2012 to 13/04/2012

REGISTRATION FORM

Name of Student: _____

Department: _____

Address: _____

_____

_____

_____

Phone No.: _____

Mobile: _____

Email: _____

Date: Signature of the applicant.

Note: Ph.D Candidates have to make their own arrangements of stay and lunch. No TA/DA will be provided. Only tea will be served during the Course Work.

Course Work Schedule on Research Methodology

	Session- I 10:00 AM To 11:30 AM	11:30 AM To 11:40 AM	Session- II 11:40 AM To 1:10 PM	1:10 PM To 2:00 PM	Session- III 2:00 PM To 3:30 PM	3:30 PM To 3:40 PM	Session- IV 3:40 PM To 5:10 PM
Day- 1 02/04/2012	Motivation of Research		Defining a Research Problem		Methods of Research		Hypothesis Testing
Day- 2 03/04/2012	Research Design	TEA BREAK	Sampling	LUNCH	Literature Review	TEA BREAK	Tools and Techniques of Data Collection
Day- 3 04/04/2012	Data Generation		Statistical Analysis of Data		Use of Computer Applications for Presentation of Data		Presentation of Research Findings
Day- 4 05/04/2012	Smart Materials		Interdisciplinary Research		How to write technical paper/Report		Writing Thesis
Day- 5 06/04/2012	Evaluation of Research		Patent & Innovation		Case Presentation		Case Presentation
Day- 6 07/04/2012	Case Presentation		Case Presentation		Case Presentation		Feedback and Discussion

Course Work Schedule on Quantitative Methods of Computer Applications

	Session- I 10:00 AM To 11:30 AM	11:30 AM To 11:40 AM	Session- II 11:40 AM To 1:10 PM	1:10 PM To 2:00 PM	Session- III 2:00 PM To 3:30 PM	3:30 PM To 3:40 PM	Session- IV 3:40 PM To 5:10 PM
Day- 1 09/04/2012	Use of System Software- MS Office	**TEA BREAK**	Use of System Software- MS Office	**LUNCH**	Hands on Practice-MS-Word, Excel and Power point	**TEA BREAK**	Hands on Practice-MS-Word, Excel and Powerpoint
Day- 2 10/04/2012	Linux		Open Softwares-Octave		Hands on Practice-Linux		Hands on Practice-Octave
Day- 3 11/04/2012	Optimization Techniques-I		Optimization Techniques-II		Computer Programming-C/C++		Computer Programming- Matlab
Day- 4 12/04/2012	Computer Programming- Labview		Computer Programming-CNC		**Practical Department wise on Major facilities**		**Practical Department wise on Major facilities**
Day- 5 13/04/2012	**Practical Department wise on Major facilities**		**Practical Department wise on Major facilities**		**Practical Department wise on Major facilities**		**Feedback and Discussion**

- **Electronics Engineering:** Image processing, VLSI, Soft computing, DSP, VSim, Adhoc Networks, Intelligent Transportation System, Embedded system, Wireless, etc
- **Computer Science & Engg.:** Test bugging, Data mining, Algorithm, Embedded system, Wireless, IBM Rational Rose, Image, Soft computing, Adhoc Networks, DSP, etc
- **Electrical Engg.:** Drives, Controls, FACTS devices, PLC & Scada, Soft computing, etc.
- **Mechanical Engg. :** Robotics, Design softwares (Unigraphcs), Production, Industrial, Materials, IC Engines, Non-Conventional energy, RAC, Heat Transfer, etc