Introduction

This one week short term course will assess the current state of knowledge and whether (and which) concepts of research methodology is suitable to develop statistical reasoning for budding researchers and the professionals. It will examine whether the focus should, in the short to long term, shift towards other methodologies.

Objectives

- > To aid faculties of UG and PG of Management and Engineering Institutes in their ongoing research.
- To impart the knowledge of decision making techniques among the Ph.D. scholars of various Management and Engineering Institutes.
- To establish and strengthen links with research Institutes \geq and Organizations working in the area of current market research.

Scope

The information available for decision making exploded in recent years, and will continue to do so in the future, probably even faster. Some of the information can be analyzed and understood with simple statistics, but much of it requires more complex, multivariate statistical techniques to analyze convert these data into knowledge. The topics included in the course are as follows:

- Introduction to research methodology ٠
- Writing a research proposal ٠
- Exposure to various reference management software •
- Hypothesis Testing ٠
- Multi Criteria Decision Making-FAHP and ٠ FTOPSIS
- CCD & Factorial design ٠
- **ANOVA** Analysis ٠
- Taguchi, & RSM Design ٠
- IPR, Plagiarism ٠
- **Correlation and Regression Analysis** ٠

Special Note

The decision to run the course depends on the response and number of candidates. It is therefore advised that the candidates should proceed to join the course only on receipt of confirmation of admission.

Resource Persons:

Faculties from reputed institutions like IITs, NITs, Central Universities and R&D institutes.

Target Audience:

This course is open to Academician, Research Scholars, UG/PG Students, persons working in R&D Organizations and Industries.

Registration Fee:

A letter of intent, forwarded by the head of the organization/institution, along with the remittance should reach the above mentioned address on or before May 20, 2019. Please include your contact e-mail, phone number, FAX and address. For payment to be made online / by RTGS, find NIT Bank Account Details given:

A/C Name: National Institute of Technology Uttarakhand Bank Name: SBI, Srinagar-Garhwal A/c No.: 37530566069 IFSC Code: SBIN0003181 Delegates

Registration	Fee	(₹)
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Industry / R& D organization		3000/-		
Academic			1500/-	
UG/PG/Ph.D.			500/-	
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applicants The must also send an e-mail to vsyadav@nituk.ac.in their indent to participate in the STC. However, no fee for the students(UG, PG & PhD) of TEQIP funded Institutions.

Note: Registration fee (non-refundable) includes registration kit, course certificate, tea and lunch.

Accommodation & Transport:

Limited accommodation is available in the MNIT Hostels for outstation participants on nominal charge and first come first serve basis. Charges of Institute Hostels Guest rooms are approximately ₹ 200/- per day. No TA/DA will be provided to the participants.

Venue

Department of Mechanical Engineering, Malaviya National Institute of Technology, Jaipur

TEQIP - III

One week Short Term Course

on

RESEARCH METHODOLOGY

(Under TWINNING Program)

May 27-31, 2019



Jointly Organized By

Department of Mechanical Engineering National Institute of Technology, Uttarakhand Satellite Campus-MNIT Jaipur, VLTC-2nd Floor, JLN Marg, MNIT Jaipur-302 017 (Raj.), India

x

Department of Mechanical Engineering Malaviya National Institute of Technology Jaipur, JLN Marg, Malaviya Nagar, Jaipur-302017 (Raj.), India

&

Department of Mechanical Engineering Sant Longowal Institute of Engineering & Technology, Sangrur, Longowal – 148106 (Punjab), India

About NIT Uttarakhand

National Institute of Technology Uttarakhand is located in the hilly terrain of Srinagar Garhwal, Pauri, Uttarakhand. NIT Uttarakhand was established in 2009 under the Act of Parliament of India by the Ministry of Human Resource Development and designated with the status of "Institute of National Importance". NIT Uttarakhand is functional from two campuses i.e. parent campus at Srinagar (Garhwal) and satellite campus at MNIT Jaipur.

About MNIT Jaipur

The Institute is located in Malaviya Nagar on Jawahar Lal Nehru Marg, Jaipur, in a campus amidst beautiful surroundings with forest parks, public parks and hillocks. Jaipur, the pink-city of India, is a heady mix of tradition & modernity, vibrant with recreational, social as well as educational experiences for the students. It has all the facilities and entertainment a student needs: excellent international brand shops, restaurants, clubs, sports facilities and a thriving cultural scene. Extending into an area of over 312 acres of lush greenery, the campus of the institute is imaginatively laid-out with a picturesque landscape. It presents a spectacle of harmony in modern architecture and natural beauty which enthralls and inspires.

About SLIET Longowal

Sant Longowal Institute of Engineering & Technology (SLIET), Deemed to be University, has been established and funded by MHRD, Government of India in 1991 to provide technical education in emerging areas of Engineering and Technology. The Institute offers programs such as certificate diploma, undergraduate (B.E.) & postgraduate (M.Tech.) degrees and Ph.D. levels in various branches of Engineering and Technology.

About Jaipur

Jaipur is situated in Northern India at a distance of around 260 km south of Delhi. It offers a multitude of interesting places and attractions. Such as lush parks and places for recreation. There are several magnificent palaces and forts. It is a city of fun, food and festivals. Vibrant color, lively folk music and dance performances mark the celebrations of every religious occasion and every change of season. Jaipur, known as the Pink City, was founded in 1727 AD by one of the greatest ruler of the Kachhawaha clan, the astronomer king Sawai Jai Singh.

Patron

Prof. S L Soni, Director, NIT, Uttarakhand Prof Udaykumar R Yaragatti, Director, MNIT Jaipur Prof. Shailendra Jain, Director, SLIET, Longowal

Convener(s)

Dr. Vinod Singh Yadav, HOD, NIT Uttarakhand Prof. Dilip Sharma, HOD, MNIT Jaipur Prof. Rajesh Kumar, HOD, SLIET Longowal

Coordinator(s)

Dr. Vikas Kukshal, NIT Uttarakhand Dr. Anshul Sharma, NIT Uttarakhand Dr. M L Meena, MNIT Jaipur Dr. Sushant Upadhaya, MNIT Jaipur Dr. Jagtar Singh, SLIET Longowal Mr. Anil Kumar Singla, SLIET Longowal

Address for Correspondence:

Interested persons should send the nomination on the enclosed Performa duly signed by the appropriate authority along with the course fee to:

Dr. Vinod Singh Yadav HOD, Department of Mechanical Engineering National Institute of Technology, Uttarakhand Satellite Campus-MNIT Jaipur, VLTC-2nd Floor, JLN Marg, MNIT Jaipur – 302 017 (Rajasthan), India Mobile: +917742884444(M) E-mail: vsyadav@nituk.ac.in

OR

Dr. M. L. Meena

Associate Professor Department of Mechanical Engineering, Malaviya National Institute of Technology Jaipur, JLN Marg, Jaipur-302017. Mobile: +91-9549654505 Email: <u>mlmeena.mech@mnit.ac.in</u>

REGISTRATION PROFORMA

TEQUEATION GUALITY IMPROVIMENT PROGRAMME - III

One week Short Term Course

on RESEARCH METHODOLOGY (Under TWINNING Program)

May 27-31, 2019

Name
Designation and Official Address
Mailing Address
Accommodation required: Yes/ No
Phone/Mobile:
E-mail:
Payment Details: (CASH/ONLINE)
Dated

Applicant Signature

Authorized Signatory With Seal

REPORT

on

ONE WEEK SHORT TERM COURSE on RESEARCH METHODOLOGY (Under TWINNING program)

A one Week short term course (STC) on research methodology was organized at satellite campus of NIT Uttarakhand located at MNIT Jaipur in joint collaboration with MNIT Jaipur and SLIET Longowal from 27th to 31st May 2019. The STC was primarily designed for the budding researchers so as to provide them the guidelines and method to undertake their research work. Experts from different discipline of Science and Engineering delivered the lectures on various aspects of research methods. The experienced experts were from MNIT Jaipur and SLIET Longowal. Total 55 participants's attended the STC on Research Methodology which includes the Ph.D scholars from NIT Uttarakhand, MNIT Jaipur and faculties from different Institutes. The course started with the introduction to research methodology and different methods of problem formulation. The experts introduced the research scholars with the various design of experiments tools such as Response Surface Method, Taguchi Design etc. The statistical tools such as correlation and regression technique using Excel and MATLAB were discussed in details. Experts also discussed the method to write the research proposal and paper writing. The importance of plagiarism and the details were also discussed by the experts. The STC was successfully organized and fulfilled all its objectives. The participants enjoyed the stay at MNIT Jaipur and savor Rajasthani food during the course.



Inaugural function of Short Term Course on Research Methodology



Professor G.S. Dangayach

Dr. Amar Patnaik

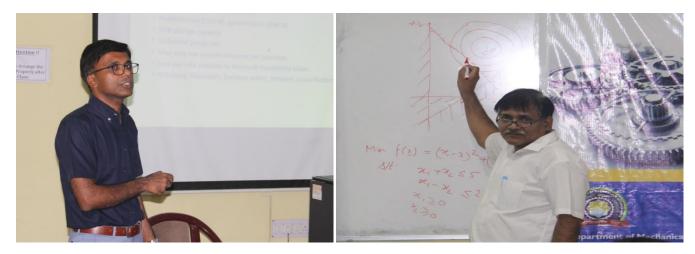
Experts delivering the lectures in the Short Term Course on Research Methodology



Professor. P.K Singh

Dr Rajeev Agrawal

Experts delivering the lectures in the Short Term Course on Research Methodology



Dr. Ashwani Kumar Aggarwal

Dr. Kailash Singh

Experts delivering the lectures in the Short Term Course on Research Methodology





Dr. Rajesh Kumar

Experts delivering the lectures in the Short Term Course on Research Methodology



Dr M L Meena

Dr Anil Singla

Experts delivering the lectures in the Short Term Course on Research Methodology



Validictory function of Short Term Course on Research Methodology

National Institute of Technology, Uttarakhand

One Week Short Term Course on

Research Methodology (May 27-31, 2019)

Scholars

S. No.	Name of Participant	Gender	Institute	Remark
5. NU.		Gender	Institute	
1	Mr. Akshay Gaur	Male	NITUK	
2	Mr. Nishu Giri	Male	NITUK	
3	Mr. KK Takhellambam	Male	NITUK	
4	Mr. Adarsh Chaturvedi	Male	NITUK	
5	Mr. Randheer Singh	Male	NITUK	
6	Mr. Sudhir Kumar Chaudhary	Male	NITUK	
7	Mr. Amit Kumar	Male	NITUK	
8	Mr. Bhoopendra Pandey	Male	NITUK	
9	Mr. Nishant Kumar	Male	NITUK	
10	Mr. Vivek Bahuguna	Male	NITUK	
11	Mr. Hardepinder Singh	Male	NITUK	
12	Mr. Vidit Kumar Vats	Male	NITUK	
13	Mr. Sunil Singh Negi	Male	NITUK	
14	Mr. Danish Amin	Male	NITUK	
15	Mr. Abhishek Srivastava	Male	NITUK	
16	Mr. Bichitra Negi.	Male	NITUK	Will be paid by
17	Mr. Ayush Joshi	Male	NITUK	Organizer
18	Mr. Pramod Tiwari	Male	NITUK	
19	Mr. Shubham Rathore	Male	NITUK	
20	Mr. Hemraj Singh	Male	NITUK	1
21	Mr. Sandip Deshmukh	Male	NITUK	1
22	Mr. Gudepu Venkateswarlu	Male	NITUK	1
23	Mr. P Nishanth	Male	NITUK	1
24	Ms. Sheetal Pal	Female	NITUK	1
25	Ms. Kanchan Bisht	Female	NITUK	1

26	Ms. Anshita Gupta	Female	NITUK	
27	Ms. Swati Devi	Female	NITUK	
28	Ms. Aradhana	Female	NITUK	
29	Ms. Himani Sharma	Female	NITUK	
30	Ms. Vaishali Singh	Female	NITUK	
31	Mr. Mohammad Masood Zafar	Male	NITUK	
Facu	lty			
Facu S. No.	-	Gender	Institute	Remark
	-	Gender Male	Institute SLIET, Longowal	Remark Will be paid by
S. No.	Name of Participant			
S. No . 1	Name of Participant Mr. Jonny Singla	Male	SLIET, Longowal	Will be paid by Organizer
S. No . 1 2	Name of Participant Mr. Jonny Singla Mr. Lalit Ahuja	Male Male	SLIET, Longowal SLIET, Longowal	Will be paid by



Introductory Session of Research Methodology



Lecture session during the STC_RM



Group Photo of Participant and Organizing team STC_RM