5 Days Faculty Development Program on "Research Scale Development: Validation and Multi-Model Testing" Hybrid Mode (Online and Offline)

for

UG/PG Students / Researchers/ Faculty Members (24<sup>th</sup> July- 28<sup>th</sup> July 2023)



# Organized by

Department of Humanities and Management Dr B R Ambedkar National Institute of Technology Jalandhar

G T Road By Pass, Jalandhar 144011 (Punjab) Tel # +91-181-2690301, 3082000

http://www.nitj.ac.in

(Limited Seats 30 Only)

#### **About the Institute**

Dr B R Ambedkar National Institute of Technology (erstwhile Regional Engineering College), Jalandhar is an 'Institute of the National Importance' amongst the 31 NITs of the country under NIT Act 2007 amended as NIT Act 2012. The institution was established in the year 1987 as Regional Engineering College and it was given the status of National Institute of Technology on October 17, 2002 by the Govt. of India under the aegis of Ministry of Human Resource Development, New Delhi.

The institute has made strides since its inception. The institute offers 11 BTech. programs in undergraduate engineering, 10 MTech., 3 M.Sc. programmes, MBA programme and Doctoral programs in all departments.

### **About the Course**

This five day Faculty Development Program on 'Research Scale Development: Validation and Multi-Model Testing' is designed to train and develop faculty/ research scholars in the various area of research, so that they can act as resource persons in guiding and facilitating research knowledge. The program is likely to provide

essential tools and techniques through hands on experience. With such aptitude, the knowledge of tools of research methodology would enhance the practicing skills of the participants, who in turn, can apply them for linking upcoming various challenges and self- generated new knowledge in respective field of research. The topics will be covered by the experts from NIT/IIT/IIM/International Universities, and other leading Institute of Eminence organizations.

#### Who should attend?

Any UG/PG students/ Researchers / Faculty Members / Industry persons can attend the program. In today's rapidly changing world, the ability to learn and adapt research tools and techniques is crucial factor for targeting excellent research outcome. As a researcher one needs to develop the necessary aptitude advance knowledge about research gaps, research tools and multi-model testing in multitude discipline

#### **Course Outcomes**

At the end of the course, participants will have a good understanding of the model testing, validation and statistical tools.

#### **Course Content**

# Day 1: Research Gap, Research Objectives, Research Questions and Research Hypothesis

- i. Introduction to the research gap
- ii. Research gap and research objectives
- iii. Conceptual framework and theoretical foundation to propose research questions and hypothesis
- iv. Null and Alternative Hypothesis

# Day 2: Research Questionnaire and Research Scale

- i. Review of literature
- ii. Process of Systematic Literature Review
- iii. How to design Research questionnaire
- iv. Adoption, adaption and modification of research scale
- v. Hand on practice

# **Day 3: Validation of Scale**

- i. EFA and CFA understanding
- ii. MSV, ASV and CR concepts
- iii. Testing a data set for validation

- iv. Select appropriate parametric and nonparametric techniques
- v. Data- Nominal, Ordinal, Interval and Ration, Hands on practice

# **Day 4: Multi- Model Testing**

- i. Confirmatory factor analysis
- ii. One, Two, Three, Four and Five Factor Model Testing
- iii. Sequential Mediation Testing
- iv. Multi-Model Mediation Test
- v. Hands on practice

# **Day 5: Multi-Model Testing**

- i. Issues in Handling Data Set
- ii. Managing Normality of Data
- iii. Multi-Level Effect of variables
- iv. Direct and In-Direct effects
- v. Hands on practice

# \*Registration Fee per participant

- (a) For External Faculty and Research Scholars @ Rs. 599 including GST
- (b) For External UG & PG Students @Rs. 499/-including GST
- (c) For NIT J Faculty members and Research Scholars @Rs. 599/- GST exempted.
- (d) For NIT J UG & PG Students @Rs. 499/-. GST exempted

# Seats: 30 Only

# **IMPORTANT DATES**

Last Date of Registration: 22<sup>nd</sup> July 2023 Program Date: 24<sup>th</sup> July – 28<sup>th</sup> July 2023

# **Organizing Committee**

## **Chief Patron**

Prof. Binod Kumar Kanujia Director, Dr. B R Ambedkar National Institute of Technology

#### **Patron**

Dr. J. N. Chakraborty

Dean (Research & Consultancy)

Dr. B R Ambedkar National Institute of Technology

#### Patron

Dr. Jagwinder Singh Head, Dept. of Humanities and Management

#### Patron

Dr. S J S Bedi

Associate Professor, Dept. of Humanities and Management

#### Conveners

Dr Nagendra Singh Nehra, Assistant Professor, Dept. of Humanities and Management

Mobile: 8860214175; e-mail: nehrans@nitj.ac.in

For any queries please contact Dr. Nagendra Singh Nehra-8860214175

# Registration Link:

https://v1.nitj.ac.in/events\_registration/fdp\_r
sd/login

<sup>\*</sup>Registration fee is non-refundable.

Registration on first come first serve basis.