

## 1.0 Overview

In today's limited budgets for public projects, proper allocation of public resources becomes critical. Oftentimes, the goals/objectives associated with these projects go beyond just completing a project. These goals may involve serving communities/populations, sustainability, preserving the environment, reducing maintenance requirements, equity, and many others. Incorporating risk into the decision-making process forces decision-makers and engineers to consider the complete set of outcomes possible when selecting between different alternatives. The application of decision-making principles to transportation project selection represents a critical requirement for meeting multiple objectives in an effective and deliberate manner. Agencies across India need to promote effective risk analysis and asset allocation using sound engineering and decision-making principles.

## 2.0 Objectives

The primary objectives of the course are as follows:

- i) Acquiring the ability to perform an economic analysis of transportation projects and alternatives,
- ii) Identifying and calculating sources of risk in transportation solutions,
- iii) Developing the ability to complete a multicriteria evaluation of transportation projects and alternatives.
- iv) Providing exposure to practical problems and their solutions, through case studies and live projects in transportation project selection and evaluation,
- v) Enhancing the capability of the participants to identify, control and remove asset management-related problems in engineering system.

### International Faculty:

**Dr. Stephen Mattingly** joined the University of Texas at Arlington (UTA) in September 2002. Prior to joining UTA he served on the faculty at the University of Alaska, Fairbanks (UAF) for two and a half years, and also served as a lecturer at the University of Southern California. While at UAF, **Dr. Mattingly** helped found the *FAA Air Transportation Centers of Excellence Program: Center for General Aviation Research*. He teaches undergraduate courses in transportation engineering and transportation planning as well as graduate courses in analytical models in transportation, system evaluation and decision making, transportation network analysis, transportation planning and bicycle and pedestrian facility planning and design.

In 2013, he joined in a consortium that formed the Transportation Research Center for Livable Communities through the USDOT University Transportation Centers Program. He represents UTA on the executive committee of the National Institute for Transportation & Communities, which is a national center in the USDOT University Transportation Centers Program. Dr. Mattingly's areas of research include a wide variety of projects. The state funded research projects include work on evaluating existing highway right-of-way for accommodating high speed passenger rail, evaluating over height detection devices, managed lane pricing and weaving, institutional approaches for inter-jurisdictional system management and detection and mitigation of roadway hazards for bicyclists. The federally-funded projects include: transportation mobility among low-income, transportation disadvantaged older adults, app-based cloud sourcing of bicycle and pedestrian conflict data, developing public health performance measures for transportation infrastructure, engineering sustainable engineers, evaluation of the Anaheim advanced traffic control system field operational test, documenting the institutional issues associated with the Irvine integrated corridor freeway ramp metering and arterial adaptive control field operational test, impacts of the Northridge Earthquake on traffic network performance, and determining the safety impact an end-around taxiway.

**Dr. Mattingly** is a member of the Transportation Research Board (TRB), the ITE and the ASCE, and recently served as the founding chair of the TRB Subcommittee (AHB45(3)) on Traffic Flow Modeling for Connected and Automated Vehicles.

### Who can participate?

This program is open to the Faculty, M.Tech students and scholars working in the areas of Transportation Engineering / Economics and infrastructure projects from various institutes. Transportation planners working in industries, consultancy firms, R&D labs can also participate.

### How to Register?

#### Stage-1: Web Portal Registration:

Visit <http://www.gian.iitkgp.ac.in/GREGN/index> and create login User ID and Password. Fillup the blank registration form and do web registration by paying Rs. 500/- online through Net Banking / Debit / Credit card. This provides the user with life time registration to enroll in any number of GIAN courses offered.

#### Stage-2: Course Registration:

Login to the GIAN portal with the user ID and Password already created in Step 1. Click on Course Registration option at the top of Registration form. Select the Course titled "**DECISION TOOLS FOR SELECTION AND EVALUATION OF TRANSPORTATION PROJECTS**" from the list and click on Save option. Confirm your registration by clicking on Confirm Course.

### Registration Fee:

Faculty	Rs. 2,000/-
Participants from Industry / Research Organizations	Rs. 5,000/-
Students & Scholars	Rs. 500/-
Participants from abroad	
Students	USD 50
Faculty / Scientists	USD 200

The Registration fee includes instructional materials, laboratory use and session teas. The out stationed participants will be provided with boarding and lodging on additional payment of Rs. 2,000/- in Visitors Block on sharing basis.

### Selection and Mode of Payment:

Selected candidates will be intimated through e-mail. They have to remit the necessary course fee to the Bank as per the details given below.

**Outstation participants requiring accommodation and boarding facilities have to pay Rs. 2,000/- in addition to the course fee.**

Account Name	GIAN NITW
Account No.	62447453600
Bank	State Bank of India
Branch	REC Warangal (NITCampus)
Branch Code	20149
IFSC	SBIN0020149
MICR Code	506002030
SWIFT Code	SBININBBH14

Candidates registering early will be given preference in short listing process

For any queries regarding registration of the course, please contact the Course Coordinators:

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**National Institute of Technology Warangal**  
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### About GIAN Course:

MHRD, Govt. of India has launched an innovative program titled "Global Initiative of Academic Networks (GIAN)" in higher Education, in order to garner the best international experience. As part of this, internationally renowned Academicians and Scientists are invited to augment the Country's academic resources, accelerate the pace of quality reforms and elevate India's scientific and technological capacity to global excellence.

### About the Institute and Warangal:

National Institute of Technology, Warangal (NITW) formerly known as RECW is the first among thirty one NITs, set up in 1959. Over the years, the Institute has established itself as a premier Institution in imparting technical education of a very high standard, leading to B.Tech, M.Tech and Ph.D. programmes in various specializations of Science and Engineering streams. Warangal is known for its rich historical and cultural heritage. It is situated at a distance of 140 km from Hyderabad. Warangal is well connected by rail and road. National Institute of Technology, Warangal campus is 3 km away from Kazipet railway station and 12 km away from Warangal railway station.

### About the Department:

The Department of Civil Engineering offers B.Tech programme in Civil Engineering, 7 M.Tech programmes including Transportation Engineering and PhD programme. The department is a recognized QIP centre since 1978. The department has well established and well equipped laboratories. The Department has experienced faculty engaged in teaching, research, capacity building activities and industry extension services. Faculty members represent several policy making and professional bodies. The Department has liaison with reputed industries and R&D organizations.



## A Five Day GIAN Course on DECISION TOOLS FOR SELECTION AND EVALUATION OF TRANSPORTATION PROJECTS

**January 22 - 26, 2018**

### Call for Registration and Participation

**International Faculty**  
**Dr. Stephen P. Mattingly**

Department of Civil Engineering  
University of Texas at Arlington (UTA), USA

**Course Coordinators**  
**Prof. CSRK Prasad**  
**Dr. Venkaiah Chowdary**

**Transportation Division**  
**Department of Civil Engineering**  
**National Institute of Technology Warangal**  
**506 004, Telangana, India**