

1. Preamble:

In the modern industry, engineers inevitably find themselves working with complex systems in different fields including, electronics, manufacturing, mining and mineral processing, agriculture, electric power, transportation and construction. They are forced to migrate from old manual systems to digital automated systems which require new methods and tools for day-to-day operations like: procurement, maintenance, manufacturing, construction, management and marketing. The crucial strength required in modern industry is the ability to stay ahead of competition on the marketplace by making timely acquisition of new products or services through *innovation or technology transfer* in key areas.

The four day's course will provide practical knowledge for harnessing the power of innovation in the competitive environment. Using local and international case studies, participants will explore important questions like: what are the sources of innovation? and how often to should firms innovate to stay competitive. Through interactive discussions, the course will equip participants on how to make decision whether to 'make or buy' creative solutions. The course shall also explore key elements of technology transfer like: plant purchases; foreign direct investment (FDIs); joint ventures; sub-contracting; and turnkey contracts.

2. Course Outline:

The Course will be offered in a mixed mode style consisting of presentations, class activity, and group assignments. Examples and illustrations will be given through simple models described by videos and graphic aids. The detailed topics to be covered are summarized below:

(a) Innovation and technology transfer

- i) Overview of innovation and technology transfer processes
- ii) Types of innovation in organizations
- iii) Aids and barriers to innovation culture
- iv) Context of innovation and technology transfer in modern industry

- v) National and international technology transfer mechanisms
- vi) Seven sources of innovation
- vii) Innovation as a tool for entrepreneurship

(b) Strategic Transformation of Assets

- i) Role of innovation and technology transfer in asset transformation.
- ii) Turning knowledge into practical innovations
- iii) Exploiting government-industry-research innovation links for strategic transformation of assets.

(c) Intellectual Property Rights (IPR)

- i) Exploiting different types of IPR
- ii) How to trade IPR as assets
- iii) Protecting IPR locally and internationally
- iv) Importance and role of IPR in safeguarding innovations
- v) IPR infringements and disputes.

3. Benefits for Attendees:

- ✚ Participants shall obtain techniques and templates for checking innovativeness of organizations. This includes practical models and frameworks for innovation and transfer of technology.
- ✚ The course will give a step-by-step guide for establishing technical entities. This includes, flowcharts, flowsheets, process layouts and business plans.
- ✚ Examples and sample reports will give insights of the underlying concepts.
- ✚ **Professional Development Units (PDUs)** from ERB
- ✚ Soft copy of Certificate of Training

4. Course Objectives and Outcomes

The course aims at imparting knowledge on the importance of innovation and technology transfer in maintaining a competitive advantage in the increasingly knowledge-based economy. Especially how to evaluate the commercial value of technology and how to acquire it through technology transfers (TT) or technology development (TD) and protecting it through intellectual property rights (IPR).

LEARNING OUTCOMES:

Upon successful completion of the course modules, participants will be able to comprehend, analyze and compare complex issues related to technology procurement like:

- vi) Conceptual frameworks of innovation and technology transfer;
- vii) Main sources of innovation and how it interacts with entrepreneurship;
- viii) How corporations can exploit innovation to maintain a competitive edge over competitors;
- ix) Evaluate the commercial potential of innovation and technology transfer;
- x) Role of technology and innovation in strategic transformation of assets
- xi) Protecting technology through intellectual property rights.

The course is designed to **user-friendly** with emphasis on basic understanding, capacity and confidence building rather than academic excellence. Therefore, no quizzes or home works are anticipated!

5. Targeted Group

It is a cross-cutting course which can be taken by engineers and non-engineers alike. It is suitable for mid to senior level experts, consultants, private individuals, government officials, policy and decision makers who need to exploit the power of innovation and technology to boost productivity and profits in corporations.

Therefore, the course is suitable for engineers, managers, directors, lawyers, procurement officers, quantity surveyors, auditors, and accountants, who make day-to-day decisions on technology procurement in organizations. The course does not require any pre-requisite knowledge in technology transfer.

6. Facilitator

Prof. Emrod Elisante is employed by the University of Dare es Salaam, where he teaches courses in Chemical and Process Engineering and advance level courses on Innovation and Technology at the University of Dar es Salaam Business School.

He is an experienced innovator, with extensive works in designing, manufacturing and installation of technologies for small and medium enterprises (SMEs). He also advises government, firms and private individuals on how to go about establishing SMEs and specifically on matters related to innovation and technology transfer.

7. Fee structure and mode of payment:

Fee structure:

- + IET Members - TShs. 500,000/-
- + Non-members - TShs. 550,000/-
- + Virtual - TShs. 200,000/-

The fee will cover Health Break Lunch, Accreditation fee, Venue hiring, Facilitator and softcopy of Training materials and Certificate.

Mode of payment

- i) Cheque payable to **The Institution of Engineers Tanzania**.
- ii) CRDB Bank A/C No. 01J1042971100, Tower Branch and Swift Code (CORUTZTZ).
 - + Please send your proof of payment (Bank slip) to WhatsApp No(s) 0738 133778, 0755 024369, 0742 319694 or email(s): institutionofengineerstz@gmail.com
[cc: trainings@iet.or.tz](mailto:cc:trainings@iet.or.tz)

8. Venue, dates and time:

Date: 7 -10 March, 2023 (4 days)

Venue: Nabaki Afrika, Dar es Salaam.

Time: 0800 – 1700hrs

9. Confirmation:

Consideration will be based on **first come first served**. The course will be conducted with minimum of 20 participants.

REGISTRATION FORM

Innovation and Technology Transfer in the Modern Industry

MARCH 7- 10, 2023
PERSONAL PARTICULARS

Name: _____

Designation: _____

Organization: _____

Address: _____

Email: _____

Mob: _____

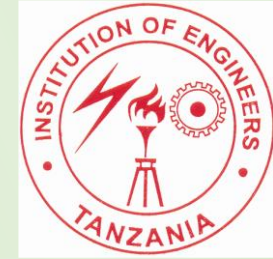
WhatsApp No. _____

Social media address(es) _____

Please send us proof of payment and registration form to:

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THE INSTITUTION OF ENGINEERS TANZANIA



COURSE INVITATION

INNOVATION AND TECHNOLOGY TRANSFER IN THE MODERN INDUSTRY

Date: 7th - 10th March, 2023

Venue: Nabaki Afrika, Dar es Salaam