

THE UNITED REPUBLIC OF TANZANIA



MINISTRY OF INDUSTRY AND TRADE

**TANZANIA ENGINEERING AND
MANUFACTURING DESIGN ORGANIZATION
(TEMDO)**



TRAINING PROGRAMMES OFFERED BY TEMDO

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COMPANY INFO, MISSION, VISION & CORE COMPETENCIES

ESTABLISHMENT

The Tanzania Engineering and Manufacturing Design Organization (TEMDO) is an applied Engineering Research and Development institution established through Parliament Act No 23 of 1980 which became operational in July 1982. TEMDO operates under the Ministry of Industry, Trade and Marketing. TEMDO is based at Njiro Hills in the Municipality of Arusha. The major establishment objective of TEMDO was to design, adapt, and develop machinery and equipment, and to promote their commercial manufacture and use.

VISION

To be a preferred provider of value - driven engineering solutions to small, medium and large enterprises towards industrialization.

MISSION

To provide high quality engineering products and services to small, medium and large manufacturing industries through research, design, technology development and transfer to attain national industrialization.

CORE COMPETENCES

At the heart of TEMDO's vision and mission are the following core values and beliefs, which will direct and guide its actions: -

- (i) Quality: performance; timely delivery; right cost.
- (ii) Excellence: exceeding customer expectations.
- (iii) Entrepreneurship: converting ideas into products and services of commercial value.
- (iv) Integrity: honoring commitments made to our customers.
- (v) Eco-friendly: Responsibility to the environments we inhabit

COURSE TITLE	CONTENTS	TARGET GROUPS	DURATION (days)
Supervisory Management Development Skills	Introduction to General Management, Planning and organizing skills, Staffing skills, Leadership skills, Control skills, Motivation, Functions & Responsibilities of a Supervisor, Skills for Effective Supervision & Problem Solving, Engineering Decision Making	Supervisors, Engineers/Non engineers and Technicians aspiring to be Managers	5
Maintenance Management of Plant & Equipment	Maintenance Management General Concepts, Maintenance Planning, Scheduling and Control, Measuring Maintenance Effectiveness, Spare Parts Repair and Reconditioning, Maintenance and Company's Profitability, Design considerations in Maintenance Management, Materials Management in Maintenance Operations and Communication and planning control in production and maintenance operations	Plant Maintenance Personnel, Engineers and Technicians	5
Production Planning and Operations Management	Production planning, Inventory control, Productivity concept, Capacity planning, Scheduling and Control Techniques, Process Improvement	Supervisors, Engineers/Non engineers, Technicians aspiring to be Managers, Safety Officers; Plant Managers, and Technicians	5
Occupation Safety, Health & Environment	Identifying Hazards, Assessing & Controlling Risks, Protecting the Environment, Investigating Incidents & Accidents, OSHA Regulations of Tanzania, Pollution prevention and control		
Waste Management	Environmental Pollution & Control Dimensions, Structured Approach to Waste Management, Waste Treatment Methods and disposal, Environmental Management System, Environment Impact Assessment.	Environmental Officers and/or Supervisors	5
General incineration concept	Waste disposal method, Introduction to Incineration, Incineration of Biomedical/Laboratory waste, contraband product, incinerator components/main parts and functions, Operational sequence and loading of incinerator, Maintenance General overview and Troubleshooting and Maintenance of Biomedical Incinerator, On site practical training	Environmental Officers and/or Supervisors	5

CNC LATHE	Fundamental of NC Technology, Classifications of NC Machines, Features of Numerical Control and Its Application Areas, the code used in CNC (NC part program and sub-program), Operation practice	Engineers /Technician	20
CNC MILLING & MasterCAM	Fundamental of NC Technology, Classifications of NC Machines, Features of Numerical Control and Its Application Areas, the code used in CNC (NC part program and sub-program), Operation practice	Engineers /Technician	20
PLASMA TECHNOLOGIES	Introduction to Plasma Machine, Types of Plasma Machine, Principal Operation of Plasma Machine, Introduction of software used in Plasma Machine, Types of software used in NC generation Codes, General Introduction of Star CAM, Generation of NC Codes by using Star CAM, setting parameters prior to cutting operation, Plasma Accessories selection and Setting	Engineers /Technician	5
CAD/CAM	Introduction to CAD/CAM, Creation of part drawings using CAD techniques, Creation of 3D models using CAD techniques, Generating CNC Programs Using Mastercam software, Generating CNC Programs Using ISO & SINUMERIK 808D software, Safety Practice	Engineers /Technician	20
Auto CAD/SOLID WORK i.e Mechanical Engineering Drawing Software	AutoCAD/SOLID basics; Setting up the workspace; Basic common commands; manipulating properties; View ports and printing; Rendering; External references; Block creation; Parts/assemblies	Design Engineers and Technicians	
TIG WELDING	Introduction to the type of T.I.G welding equipment and accessories, The working principle of T.I.G welding, The types of materials for T.I.G welding, The shielding gases for T.I.G welding, Sizes and types of Tungsten electrode, The process of welding stainless steel by T.I.G welding. Safety practise guidelines for T.I.G welding, Practical welding operation of different size stainless steel by T.I.G welding	Technician/Artisan	5

MIG WELDING	Introduction to the type of MIG welding equipment and accessories, The working principle of MIG welding technique, The types of materials stainless steel for MIG welding, The shielding gas for MIG welding, Sizes and types of welding wire, Safety practice guidelines for MIG welding, Defects in welding, Practical welding operation of different size stainless steel by MIG welding	Technician /Artisans	5
Introduction to basic KAIEZEN			

The main objective of all courses is to enable technical staff working in industry demonstrate enhancement of knowledge and skills in the subjects by the end of the course. The learning process is facilitated through lectures (power point presentations), hands-on skills, lecture notes, group works/discussions. Communication is in both Kiswahili and English languages. However, lecture notes are in the English language. The Institution have well organized venue/facility for conducting courses, both health break tea and lunch usually is provided. At the end of the course, participants are issued with certificates of participation.

For registration and enquiry, please contact officials at the relevant venues for the courses at the following addresses:

The Director General,

TEMDO,

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Email: dg@temdo.or.tz

214-Njiroroad, Arusha

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