

**MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY  
COLLEGE OF ENGINEERING AND TECHNOLOGY  
DEPARTMENT OF CIVIL ENGINEERING**

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P.O. Box 131,  
Mbeya,  
Tanzania.

21<sup>st</sup> April, 2022

**SHORT COURSE TRAINING IN ANALYSIS AND DESIGN OF MULTI-STORIED BUILDING  
USING PROTA STRUCTURE SOFTWARE**

Civil Engineering department is under College of Engineering and Technology (CET) at Mbeya University of Science and Technology (MUST). The department provides short and long courses to increase skills and knowledge in Civil Engineering activities. The department invites applications for short course in ANALYSIS AND DESIGN OF MULTI-STORIED BUILDING USING PROTA STRUCTURE SOFTWARE which will be conducted at Mbeya city from **16th to 20th May, 2022**.

**1. PREAMBLE**

Computer-aided drafting, analysis, and design software are valuable tools for any structural engineering firm. Given the industry's rapid growth, intense competition, and demands, a company cannot survive if it does not harness the benefits and capabilities of modern computer software. This training aims to provide structural engineers with a variety of advantages when designing concrete structures, including 3D finite element analysis, fully automated RC detailing in drawing sheets, and bar bending schedule preparation. Prota Structure is a cutting-edge structural BIM solution that allows structural engineers to quickly and accurately model, analyze, and design buildings.

**2. TRAINING OUTCOME**

At the end of the training, participants are expected to:

- Understand the process involved in the design of building elements
- Perform 3D modelling of reinforced concrete building
- Analyze and design different elements of the building
- Prepare bar bending schedule
- Produce high quality drawings and all design documentation.

### 3. COURSE CONTENT

- Introduction to reinforced concrete design and detailing
- Modelling of structural elements including slab, beams, columns, foundation
- Analysis of 3D model under gravity, wind
- Design of building elements using different codes such as British standard and Eurocode
- Advanced documentation tools for generating design report
- Preparation of drawings and details

### 4. ACCREDITATION

- This course is accredited by Engineers Registration Board (ERB). Professional engineers will receive **25** Professional Development Units (PDUs)

**Target Group:** The intended audience for this training is Civil Engineers who want to gain cutting-edge knowledge on how to use computer software for accurate and faster building design.

**Course Fee: TZS 600,000/= Tanzanian**  
**USD 400 Non-Tanzanian**  
**TZS 300,000/= MUST staff**

**Application form fee: Tsh. 5,000 /=-**

Application form is available at the end of this announcement or from Head of Civil Engineering Department Office.

Application Form and course fee should be paid through control number obtained from Mbeya University of Science and Technology (consult coordinators)

**APPLICATION FORM SHOULD BE SUBMITTED TO THE FOLLOWING ADDRESS;**

Email: [cruvunduka@mustnet.ac.tz](mailto:cruvunduka@mustnet.ac.tz), [amalisa@mustnet.ac.tz](mailto:amalisa@mustnet.ac.tz),

OR

HOD- CIVIL ENGINEERING DEPARTMENT OFFICE

PHONE: 0717 762 003, 0756 263 982, 0763 539 864

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5<sup>th</sup> Feb, 2022

**SHORT COURSE APPLICATION FORM**

**APPLICANT PARTICULARS**

FIRST NAME: .....

MIDDLE NAME: .....

SIRNAME: .....

GENDER .....

AGE .....

WORK OFFICE: .....

OCCUPATION: .....

**PHYSICAL ADDRESS:**

POSTAL ADDRESS.....

WARD .....

DISTRICT/MUNICIPAL .....

REGION .....

**CONTACTS**

MOBILE: .....

E-MAIL: .....

**EDUCATION BACKGROUND**

LEVEL OF EDUCATION :( Tick (√) where appropriate)

Standard seven ☐

Form IV	<input type="checkbox"/>
Form VI	<input type="checkbox"/>
Diploma /Certificate	<input type="checkbox"/>
Degree/ above	<input type="checkbox"/>

## DECLARATION

APPLICANT NAME: .....

APPLICANT SIGNATURE: .....

DATE: .....

Application Form and course fee should be paid through control number obtained from Mbeya University of Science and Technology (consult coordinators)

Application form and bank pay slip should be sent by email shown below:

Email: [cruvunduka@mustnet.ac.tz](mailto:cruvunduka@mustnet.ac.tz), [amalisa@mustnet.ac.tz](mailto:amalisa@mustnet.ac.tz),

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