

2.0 BACHELOR OF ENGINEERING (B.ENG)

2.1 COURSE OFFERED

The College offers three years programme leading to Bachelor of Engineering Degree in Civil and Irrigation Engineering (CIE).

2.2 ENTRY REQUIREMENTS

Admission to this programme is open to candidates who have an Ordinary Diploma (NTA Level 6) or equivalent in Civil/Transportation Engineering, Water Supply and Sanitation Engineering as well as Irrigation Engineering

2.3 ENTRY CRITERIA

Candidates who possess NTA Level 6 (Ordinary Diploma) with minimum Grade Point Average (GPA) of 2.7 from NACTE accredited or recognised Institution and at least four (4) passes at Secondary Education (CSEE).

OR

Candidates who possess a good Full Technician Certificate (FTC) in the field of interest or its equivalent from a recognised institution with an average of minimum pass of C or an average of minimum 3 points based on the following conversion scale: A=5, B=4, C=3, D=2 and at least four (4) passes at Secondary Education (CSEE).

3.0 MODE OF APPLICATION

Application forms can be obtained from the Office of Registrar at the Arusha Technical College or can be downloaded from the College website: <http://www.atc.ac.tz>.

Application forms will only be considered if accompanied by:

- (i) A non-refundable application fee of TZS. 10,000/= (TZS ten thousand only) in the form of Open Postal Order or Telegraphic money order payable to the **Principal, Arusha Technical College or pay directly to the College account National Microfinance Bank, Account Name: TCA Students Services A/C, Account No: 4082517105.**
- (ii) Certified copies of relevant certificates such CSEE, academic transcripts/National Examination statements of results or results slip.
- (iii) Two coloured passport size personal photographs taken within the last six months.
- (iv) Two coloured passport size personal photographs taken within the last six months.

4.0 FEES

Information on fees structure is provided in ATC website. It is the responsibility of the candidates to present evidence of scholarship from third part sources or Higher Education Students Loan Board (HESLB) for B.ENG applicants.

5.0 CLOSING DATE

The closing date for receiving the application forms is **20th May, 2011.**

No consideration will be made for late applicants.

6.0 WARNING

Submission of forged certificates or any false information is criminal offence and will be dealt with according to the law.

7.0 ENQUIRIES

All applications and enquiries about admission should be addressed to:

Principal,

Arusha Technical College,
P.O. Box 296, Arusha.

Tel.:+255 27 2503040

Fax: +255 27 2548337

E-mail: studies@atc.ac.tz or principal@atc.ac.tz



Traditional Irrigation Structures



Improved Irrigation Schemes Structures

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Website: <http://www.atc.ac.tz>



ARUSHA TECHNICAL COLLEGE

CIVIL AND IRRIGATION ENGINEERING PROGRAMME



"For the socio-economic development of Tanzania, agriculture is almost everything"

Pronouncement of H.E. Jakaya Mrisho Kikwete, the President of the United Republic of Tanzania at the launching of KILIMO KWANZA

3rd August 2009, Dodoma

<http://www.atc.ac.tz>

1.0 Civil and Irrigation Engineering Programme

1.1 Introduction

Arusha Technical College (ATC) is an institution registered by the National Council for Technical Education (NACTE) to train technicians and engineers. ATC is fully accredited by NACTE. ATC was established in March 2007 through the Arusha Technical College Establishment Order No. 78 under the NACTE Act No. 9 of 1997 to replace the then Technical College Arusha that existed since 1978. The College therefore has over 30 years experience in delivery of technical education and training programmes.

Arusha Technical College (ATC) aspires to become one of the prime contributors of technology experts in irrigated agriculture in the Country and has started by introducing the Civil and Irrigation Engineering programme at technician and engineering level starting from academic year 2010/11. In so doing the College will support the growth and development of agriculture in Tanzania.

The Civil and Irrigation Engineering undergraduate programme aims at producing professionals who will serve both Irrigation (agricultural) sector and construction industry. The programme will produce graduates with ability of planning, designing, constructing, operating and maintaining Civil and Irrigation Engineering structures and Schemes. In addition, they will be able to assume roles involving managerial and organisational responsibility including provision of leadership over a broad range of engineering activities.

According to the National Irrigation Master Plan the total potential area for irrigation development in Tanzania is estimated at 29.4 million hectares with varying potential levels. It is estimated that there are 2.3 million, 4.8 million and 22.3 million hectares of high, medium and low irrigation potential in the country. Crop production in Tanzania is however currently dominated by rain fed. From a high potential irrigable area of almost 2.3 million hectares, only 227,486 ha, approximately 10 percent, is currently under irrigation.

Currently, the development of both small and large-scale irrigation schemes is hampered by the limited technical capacity in the irrigation sector which also significantly constraint growth and sustainability of irrigation investments. Further, Irrigation Experts from the Ministry of Water and Irrigation reported that improvement and development of irrigation schemes in the Country is slowed down by inadequate number of irrigation professionals available to support public sector at Local Government Authority level and low capacity of local consultants and contractors in areas pertaining to irrigation development interventions. Consequently, in order for ASDP and KILIMO KWANZA strategies to achieve their intended goals,



Irrigation Schemes Structures

a significant level of training and capacity building would be needed to cover the current limited technical capacity for the design and implementation of irrigation schemes.

1.2 Programme Philosophy

The philosophy of the programme is based on the following principles and assumptions:

- To provide foundations of basic principles, skills and expertise that will give the greatest opportunity for graduate career development;
- To facilitate changes in interest, specialties, roles and responsibility;
- To provide in depth understanding of a variety of Civil and Irrigation Engineering applications;
- To stimulate student interest in learning and engineering applications, motivation and pursuance of further knowledge and imaginative thinking
- To produce graduates who are ready to enter Civil and Irrigation Engineering employment and flexibly satisfy the needs of industry; and
- To satisfy the requirements of the National Council for Technical Education, which is regulating Technical Education in the Country.

1.3 Aims of the Programme

The aims of the programme are to provide: -

- A sound and structured education in principles, methods and application of Civil and Irrigation Engineering;



Typical Surface Irrigation Schemes and structure

- A range of personal skills sufficient to equip students with skills necessary for effective employment/self-employment in related areas; and
- A stimulating environment, which motivates students to realize their potentials through their current studies and equip them with skills, needed to maintain, update their skills and education throughout their future careers or responsibility

1.4 Objectives of the Programme

The objectives of the programme are to establish:

- Appropriate practical and analytical competencies in planning, designing, constructing, operating, maintaining, rehabilitating and managing Irrigation schemes
- A thorough understanding of principles associated with civil and irrigation engineering applications
- An appreciation that the solution to Civil and Irrigation engineering problem must involve the integration of wider engineering disciplines, consideration of their economic and environmental consequences and the employment of non-technical disciplines, Initiative, imagination, perception and confidence sufficient to cope with new situations, problems and ideas by critical analysis of situations, synthesis of practical solutions and application of new idea;
- Potential knowledge for creative and critical thinking and self-awareness
- The ability to communicate with members of an organisation at the same, higher and lower levels of expertise



Typical Irrigation Schemes

“Irrigated agriculture is the only salvation of our Nation from poverty”

*Statement by the Prime Minister of the United Republic of Tanzania
Hon. Mizengo K. Peter Pinda (MP) at the Arusha Technical College
on 30th January 2010*