

# THE FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE ADVERTISEMENT FOR ADMISSION INTO POSTGRADUATE PROGRAMMES FOR 2016/2017 ACADEMIC SESSION

Applications are invited from suitably qualified candidates for admission into the following Postgraduate Programmes of the Federal University of Technology, Akure for the 2016/2017 Academic Session

#### **Preamble**

## The School of Postgraduate Studies

As part of its Vision and Mission in terms of the development of high-level skilled manpower for the country, Council of The Federal University of Technology, Akure approved the establishment of the Board of Postgraduate Studies in 1986, which metamorphosed into School of Postgraduate Studies in 1994.

In pursuance of the primary objectives of the Federal Government for the establishment of the Universities of Technology, the Postgraduate Programmes of The Federal University of Technology, Akure are intended to consolidate and build upon the solid intellectual and technological foundations which the undergraduate courses in the University have been most carefully designed to achieve.

The need for purposeful and functional education, which fosters technology for selfreliance, as an antidote to under-development, is the underlying principle for the design of specific Postgraduate Programmes in the various Schools of the University. The mission of the School of Postgraduate Studies includes the development and offering of academic and professional programmes leading to the award of postgraduate diplomas and higher degrees which emphasize planning, adaptive productive skills in the engineering, scientific, agricultural, environmental and allied professional disciplines.

Within the context of these general objectives therefore, graduate students of The Federal University of Technology, Akure are trained to:

(i) have a very sound and an in-depth knowledge of the basic principles underlying the body of knowledge they are being trained to master;

- (ii) develop a broad analytical mind that would enhance major intellectual and technological break-through to improve the lot of man and the society, through basic and need-driven research programmes; and
- (iii) be adequately versed in their discipline, and be competent to impart the knowledge on others in a conducive academic environment to ensure the continued existence of the system.

It is worth mentioning that our admission policy reflects 60% undergraduate and 40% postgraduate supported by highly qualified academic staff.

- A. HIGHER DEGREE PROGRAMMES AND POSTGRADUATE DIPLOMA (PGD) PROGRAMMES AVAILABLE
- (i) Doctor of Philosophy (Ph. D)
- (ii)Master of Philosophy (M. Phil.) (Architecture and Computer Science only),Master of Agricultural Technology (M. Agric. Tech.), Master of Engineering (M. Eng.) and Master of Technology (M. Tech.)
- (iii) Postgraduate Diploma (PGD)

## 1. SCHOOL OF AGRICULTURE AND AGRICULTURAL TECHNOLOGY (SAAT)

- (A) Doctor of Philosophy (Ph. D), Master of Agricultural Technology (M. Agric. Tech.), Master of Technology (M.Tech, for only Department of Food Science and Technology) are available in the following Departments and Options:
- (i) Department of Agricultural Extension and Communication Technology (AEC)
  - (a) **PGD** Agric. Extension and Communication Technology

## (b) M. Agric. Tech. Agric. Extension & Communication Technology

- General Extension
- Rural Development
- Rural Sociology
- Technology Transfer
- Communication

#### (c) Ph. D

- General Extension
- Rural Development
- Rural Sociology
- Technology Transfer
- Communication Technology

## (ii) Department of Agricultural and Resource Economics (ARE)

## (a) M. Agric. Tech. Agric. Resource Economics

- Production Economics
- Environmental Economics
- Farm Management
- Finance & Marketing

#### (b) **Ph. D**

- Production Economics
- Environmental Economics
- Farm Management
- Finance & Marketing

## (iii) Department of Animal Production and Health (APH)

- (a) PGD Animal Production and Health
- (b) M. Agric. Tech.
- (i) Animal Production
  - Agricultural Biochemistry and Nutrition
  - Animal Breeding and Genetics
  - Animal Production and Management (Poultry, Swine, Sheep and Goat, Rabbit/Micro-livestock)
  - Animal Physiology (Reproductive Physiology)

#### (ii) Animal Health

- Animal Parasitology
- Animal Microbiology
- Farm Hygiene and Disease Prevention

#### (c) Ph. D

#### (i) Animal Production

- Agricultural Biochemistry and Nutrition
- Animal Breeding and Genetics
- Animal Production and Management (Poultry, Swine, Sheep and Goat, Rabbit/Micro-livestock)
- Animal Physiology

### (ii) Animal Health

- Animal Parasitology
- Animal Microbiology
- Farm Hygiene and Disease Prevention

## (iv)Department of Crop, Soil and Pest Management (CSP)

- (a) PGD Crop, Soil and Pest Management
- (b) M. Agric. Tech.

#### (i) Crop Management Technology

- Plant Systematics & Taxonomy
- Plant Breeding & Genetics
- Plant Physiology
- Horticulture
- Agronomy

#### (ii) Soil Management Technology

- Soil Fertility
- Fertilizer Use Technology
- Land Survey and Management
- Plant Nutrition
- Soil Survey & Classification

### (iii) Pest Management Technology

- Crop Entomology
- Plant Pathology
- Nematology
- Plant Virology
- Weed Management
- Weed Biology & Ecology

#### (b) **Ph.D**

### (i) Crop Management Technology

- Plant Systematics & Taxonomy
- Plant Breeding & Genetics
- Plant Physiology
- Horticulture
- Agronomy

### (ii) Soil Management Technology

- Soil Fertility
- Fertilizer Use Technology
- Land Survey and Management
- Plant Nutrition
- Soil Survey & Classification

#### (iii) Pest Management Technology

- Crop Entomology
- Plant Pathology
- Nematology
- Plant Virology
- Weed Management
- Weed Biology & Ecology

## (v) Department of Fisheries and Aquaculture Technology (FAT)

(a) PGD Fisheries and Aquaculture Technology

## (b) M. Agric. Tech. Fisheries & Aquaculture Technology

- Aquaculture
- Fisheries Management
- Fish Nutrition
- Fish Breeding
- Fisheries Economics
- Fish Processing & Utilization

## (c) Ph.D Fisheries & Aquaculture Technology

- Aquaculture
- Fisheries Management
- Fish Nutrition
- Fish Breeding
- Fisheries Economics
- Fish Processing & Utilization

## (vi) Department of Ecotourism and Wildlife Management (EWM)

### (a) PGD Ecotourism and Wildlife Management

## (b) M. Agric. Tech. Ecotourism & Wildlife Management

- Wildlife Management
- Biodiversity Ecology
- Ecotourism Management
- Wildlife Domestication

## (c) Ph.D Ecotourism & Wildlife Management

- Wildlife Management
- Biodiversity Ecology
- Ecotourism Management

## (vii) Department of Forestry & Wood Technology (FWT)

### (a) PGD

- Forestry and Wood Technology
- Environmental Management

In addition to the above-stated options, students may conduct research in the following areas:

- Herbal Science Natural Therapeutic
- Biocomposite Technology
- Furniture Design & Production
- Wood Processing Technology

## (b) M. Agric. Tech. Forestry & Wood Technology

- Forest Resources Management
- Forest Biology/Silviculture
- Agroforestry/Soils
- Wood Science Technology
- Wood Products Technology
- Forest Inventory & Biometrics

In addition to the above-stated options, students may conduct research in the following areas:

- Herbal Science Natural Therapeutic
- Biocomposite Technology

- Furniture Design & Production
- Wood Processing Technology

## (c) Ph.D Forestry & Wood Technology

- Forest Resources Management
- Forest Biology/Silviculture
- Agroforestry/Soils
- Wood Science Technology
- Wood Products Technology
- Forest Inventory & Biometrics

In addition to the above-stated options, students may conduct research in the following areas:

- Herbal Science Natural Therapeutic
- Biocomposite Technology
- Furniture Design & Production
- Wood Processing Technology

## (viii) Department of Food Science and Technology (FST)

(a) **PGD** Food Science and Technology

#### (b) M. Tech. Food Science and Technology

- Food Chemistry
- Human Nutrition
- Food Processing
- Post-Harvest Technology

#### (c) Ph.D Food Science and Technology

- Food Chemistry
- Human Nutrition
- Food Processing
- Post-Harvest Technology

## 2. SCHOOL OF ENGINEERING AND ENGINEERING TECHNOLOGY (SEET)

Doctor of Philosophy (Ph. D), Master of Engineering (M. Eng.) and Postgraduate Diploma (PGD) programmes are available in the following Departments and Options:

## (i) Department of Agricultural and Environmental Engineering (AGE)

(a) **PGD** Agricultural and Environmental Engineering

## (b) M. Eng. Agric. and Environmental Engineering

- Farm Power and Machinery
- Soil and Water Engineering
- Processing and Storage Engineering
- Farm Structures and Environmental Control
- Alternative Energy

### (c) Ph.D Agric. and Environmental Engineering

- Farm Power and Machinery
- Soil and Water Conservation Engineering
- Post-Harvesting Engineering
- Farm Structures and Environmental Control
- Alternative Energy

## (ii) Department of Civil and Environmental Engineering (CVE)

(a) **PGD** Civil and Environmental Engineering

## (b) M. Eng. Civil and Environmental Engineering

- Geotechnical Engineering
- Structural Engineering
- Transportation Engineering
- Water Resources and Environmental Engineering
- Construction Engineering

#### (c) Ph. D Civil and Environmental Engineering

- Geotechnical Engineering
- Structural Engineering
- Transportation Engineering
- Highway Maintenance & Rehabilitation Engineering
- Water Resources and Environmental Engineering
- Construction Engineering

## (ii) Department of Electrical & Electronics Engineering (EEE)

### (a) **PGD** Electrical and Electronics Engineering

## (b) M. Eng. Electrical & Electronics Engineering

- Power Systems Engineering
- Communications Engineering

## (c) Ph. D Electrical & Electronics Engineering

- Power Systems Engineering
- Communications Engineering

## (iv)Department of Mechanical Engineering (MEE)

#### (a) **PGD** Mechanical Engineering

## (b) M. Eng. Mechanical Engineering

- Production Engineering
- Industrial Engineering/Operations Research
- Building Services Engineering
- Automotive Engineering
- Energy Systems
- Thermofluids
- Computational Fluid Dynamics

#### (c) Ph. D Mechanical Engineering

- Production Engineering
- Industrial Engineering/Operations Research
- Building Services Engineering
- Automotive Engineering
- Energy Systems
- Thermofluids
- Computational Fluid Dynamics

## (v) Department of Metallurgical & Materials Engineering (MME)

## (a) **PGD** Metallurgical & Materials Engineering

## (b) M. Eng. Metallurgical & Materials Engineering

- Production/Mechanical Metallurgy
- Physical Metallurgy/Corrosion Engineering
- Materials Engineering

## (c) Ph.D Metallurgical & Materials Engineering

- Production/Mechanical Metallurgy
- Physical Metallurgy/Corrosion Engineering
- Materials Engineering

## (vi) Department of Mining Engineering (MNE)

(a) **PGD** Mining Engineering

### (b) M. Eng. Mining Engineering

- Surface Mining
- Underground Mining
- Rock Mechanics
- Mineral Processing
- Mine Management and Mineral Economics
- Mine Safety and Environment
- Mine Surveying & Photogrammetry

### (c) Ph. D Mining Engineering

- Surface Mining
- Underground Mining
- Rock Mechanics
- Mineral Processing
- Mine Management and Mineral Economics
- Mine Safety and Environment
- Mine Surveying & Photogrammetry

## 3. SCHOOL OF ENVIRONMENTAL TECHNOLOGY (SET)

Doctor of Philosophy (Ph. D), Master of Philosophy (Architecture) (M. Phil.), Master of Technology (M. Tech.) and Postgraduate Diploma (PGD) programmes are available in the following Departments and Options:

### (i) Department of Architecture (ARC)

- (a) PGD Architecture
- (b) M. Tech. Architecture

## (ii) Department of Urban and Regional Planning

- (a) PGD Urban and Regional Planning
- (b) M. Tech. Urban and Regional Planning
- (c) Ph. D Urban and Regional Planning

## (iii) Department of Estate Management (ESM)

(a) PGD Estate Management

## (b) Master of Real Estate (MRE) (Professional)

- Land Management
- Facilities Management
- Plant and Machinery Valuation

#### (c) M. Tech. (Academic)

- Estate Management
- (d) Ph. D Estate Management

## (iv) Department of Quantity Surveying (QSV)

#### (a) PGD

- Quantity Surveying
- Construction Management

#### (b) M. Tech. Quantity Surveying

- Cost Management
- Construction Economics
- Quantity Surveying Practices
- Procurement Studies

#### (c) Ph. D

No vacancy

#### (v) Department of Industrial Design (IDD)

#### (a) **PGD** Industrial Design

- Ceramics Design
- Graphics
- Textile Design

#### (b) M.Tech. Industrial Design

- Ceramics Design
- Graphics
- Textile Design

### (c) Ph. D Industrial Design

- Ceramics Design
- Graphics
- Textile Design

## 4. SCHOOL OF EARTH AND MINERAL SCIENCES (SEMS)

Doctor of Philosophy (Ph. D), Master of Technology (M. Tech.) and Postgraduate Diploma Programmes are available in the following Departments and Options:

## (i) Department of Applied Geology (AGY)

### (a) PGD Applied Geology

#### (b) M. Tech. Applied Geology

- Mineral Exploration
- Remote Sensing
- Hydrogeology and Engineering Geology
- Petroleum and Sedimentary Geology

#### (c) Ph. D Applied Geology

- Remote Sensing
- Hydrogeology
- Engineering Geology
- Petroleum Geology
- Sedimentology
- Structural Geology

#### (ii) Department of Applied Geophysics (AGP)

#### (a) M. Tech. Exploration Geophysics

- Petroleum Exploration
- Mining Geophysics
- Groundwater/Environmental/ Engineering Geophysics

## (b) Ph. D Exploration Geophysics

- Petroleum Exploration
- Mining Geophysics
- Groundwater/Environmental/ Engineering Geophysics

## (iii) Department of Meteorology (MET)

### (a) PGD Meteorology

### (b) M. Tech. Meteorology

- Numerical Weather Forecasting
- Agrometeorology

#### (c) Ph. D Meteorology

- Numerical Weather Forecasting
- Synoptic Meteorology
- Aviation Meteorology
- Satellite Meteorology
- Air Pollution Meteorology
- Agrometeorology

## 5. SCHOOL OF MANAGEMENT TECHNOLOGY (SMAT)

Doctor of Philosophy (Ph. D), Master of Technology (M. Tech.) and Postgraduate Diploma (PGD) programmes are available in the following Departments and Options:

### (i) Department of Project Management Technology (PMT)

(a) PGD Project Management Technology

#### (b) M. Tech.

- Project Management Technology
- Management Sciences

## (c) Ph. D Project Management Technology

- Project Management Technology
- Management Sciences

## (ii) Department of Transport Management Technology (TMT)

(a) PGD Transport Management Technology

## (b) M. Tech. Transport Management Technology

- Land Transport Management
- Maritime Transport Management
- Air Transport Management

#### (c) Ph. D Transport Management Technology

- Land Transport Management Technology
- Maritime Transport Management Technology
- Air Transport Management Technology

#### 6. SCHOOL OF SCIENCES (SOS)

Doctor of Philosophy (Ph.D) and Master of Technology (M.Tech.), and Postgraduate Diploma (PGD) programmes are available in the following Departments and Options:

#### (i) Department of Biochemistry (BCH)

- (a) **PGD** Biochemistry
  - Applied Biochemistry
  - Clinical Biochemistry

## (b) M. Tech. Biochemistry

- Enzymology
- Microbial Biochemistry
- Food/Nutritional Biochemistry
- Toxicology

## (c) Ph. D Biochemistry

- Enzymology
- Microbial Biochemistry
- Food/Nutritional Biochemistry
- Toxicology

### (ii) Department of Biology (BIO)

#### (a) M. Tech. Biology

- Food Storage Technology
- Applied Parasitology
- Environmental Biology and Public Health

#### (b) Ph. D Biology

- Applied Parasitology
- Storage Microbiology
- Storage Entomology/Applied Econtomology

### (iii) Department of Microbiology (MCB)

- (a) **PGD** Microbiology
  - Food Microbiology
  - Medical Microbiology

#### (b) M. Tech. Microbiology

- Food Microbiology
- Environmental Microbiology
- Medical Microbiology

### (c) Ph.D Microbiology

- Food Microbiology
- Environmental Microbiology
- Medical Microbiology

## (iv) Department of Chemistry (CHE)

(a) PGD Industrial Chemistry

#### **(b) M. Tech. Chemistry** (Academic)

- Analytical Chemistry
- Industrial Chemistry
- Environmental Chemistry

#### (d) Ph. D Chemistry

- Analytical Chemistry
- Industrial Chemistry
- Environmental Chemistry
- Food Chemistry
- Polymer Chemistry
- Organic Chemistry
- Inorganic Chemistry
- Physical Chemistry

## (v) Department of Mathematical Sciences (MTS)

#### (a) M. Tech. Industrial Mathematics

- Dynamics of Structure (Solid Mechanics)
- Numerical Methods in Ordinary Differential Equations (ODE)
- Fluid Mechanics
- Optimal Control

#### (b) Ph. D Mathematics

- Dynamics of Structure (Solid Mechanics)
- Numerical Methods in Ordinary Differential Equations (ODE)
- Fluid Mechanics
- Optimal Control

## (v) Department of Computer Science (CSC)

- (a) PGD Computer Science
- (b) M. Tech. Computer Science
- (c) M. Phil. Computer Science
- (d) Ph.D. Computer Science

## (vii) Department of Physics (PHY)

(a) PGD Physics Electronics

## (b) M. Tech. Physics

- Condensed Matter Physics
- Electronic Measurements & Instrumentation
- Communication Physics
- Radiation and Health/Medical Physics
- Lower Atmospheric Physics

### (c) Ph. D Physics

- Condensed Matter Physics
- Electronic Measurements & Instrumentation
- Communication Physics
- Radiation and Health/Medical Physics
- Lower Atmospheric Physics

#### (viii) Department of Statistics (STS)

- (a) PGD Statistics
- (b) M. Tech. Statistics

#### (c) Ph. D Statistics

- Econometrics
- Mathematical Statistics
- Operations Research

In addition to the above, students for M. Tech and Ph. D degree programmes may conduct research in the following areas:

- Experimental Design
- Multivariate Analysis
- Quality Control and Technometrics
- Time Series Analysis
- Sampling Techniques

## 7. COLLABORATION WITH OTHER RESEARCH CENTRES

(i) The University in collaboration with the Regional Centre for Training in Aerospace Surveys (RECTAS), Ile-Ife, Nigeria, offers Master in Geoinformation Technology (MGIT).

in the following specialisation

- (i) Disaster Risk Management
- (ii) Environmental Management
- (iii) Land Resource Management
- (iv) Natural Resource Management
- (v) Hydrology and Water Resource Management
- (vi) Meteorology and Climate Change
- (vii) Soil Analysis and Agricultural Management
- (viii) Health and Social Development
- (ix) Crime Mapping, Peace and Security and Military Intelligence
- (x) Urban Planning and Analysis
- (xi) Geovisualisation and Mapping Technology. www.rectas.org.
- (ii) The University also in collaboration with African Regional Centre for Space Science and Technology Education-English (ARCSSTE-E), Ile-Ife, Nigeria (affiliated to the United Nations), offers Master of Space Science and Technology (MSST) in the following Options/specializations:
- (a) Satellite Communication
- (b) Basic Space Physics
- (c) Satellite Meteorology, and
- (d) Remote Sensing and GIS www.arcsstee.org.

#### **B. ADMISSION REQUIREMENTS**

- (i) Postgraduate Diploma (PGD)
  - (a) A first degree in the relevant discipline.
  - (b) Higher National Diploma (HND) of **at least** Lower Credit level or its equivalent in the relevant or related discipline.
  - (c) Professional qualifications acceptable in the University, such as ACA, AIB, ACCA, ACIS, or equivalent for the

Postgraduate Diploma in Computer Science only.

## (ii) Master of Agric. Technology/Master of Engineering/Master of Technology

(M. Agric. Tech./M. Eng./M. Tech.)

- (a) A good Bachelors degree of at least **Second Class Lower Division** of The Federal University of Technology, Akure, in the appropriate discipline.
- (b) A **good** Bachelors degree from other recognized Universities, in the appropriate discipline.
- (c) Higher National Diploma of at least Lower Credit level and in addition, the candidate must have a Postgraduate Diploma (at Upper Credit level) in the appropriate discipline.

## (iii) Master of Philosophy (M. Phil.)

For M. Phil. in advertised discipline, a good M. Tech. degree or equivalent is required in the relevant discipline.

#### (iv) Doctor of Philosophy (Ph. D)

- (a) A **good** Masters degree in the appropriate discipline with a CGPA of 3.50 and/or 60% **minimum** average score.
- (b) Any other qualification approved by Senate.

#### C. DURATION OF PROGRAMMES

- (i) Postgraduate Diploma Programmes (PGD)
- (a) **Full-Time** students shall **normally** spend between twelve (18) and twenty-four (24) months.
- (b) **Part-Time** students shall **normally** spend between eighteen (18) and thirty-six (36) months.

### (ii) Masters Programmes

M. Agric. Tech./M. Eng./M. Tech./ Professional Students shall normally be required to spend between eighteen (18) and twenty-four (24) months.

### (iii) M. Phil. Programme

- (a) Students shall **normally** be required to spend between eighteen (18) and twenty-four (24) months.
- (b) A candidate may transfer from M. Phil. to Ph.D programme after completing the course-work and fulfilling all other approved requirements.

#### (iv) Doctor of Philosophy (Ph. D) Programme

- (a) **Full-Time** candidates may defend their theses between thirty-six (36) and sixty (60) months.
- (b) **Part-Time** candidates may defend their theses between forty-eight (48) and seventy-two (72) months.

Note: Applicants are no longer required to present O'Level results for postgraduate admissions

#### D. METHODS OF APPLICATION

- (i) Candidates should process their application on-line at the University's website (http://www.futa.edu.ng),
   (www.arcsstee.org), and
   (www.rectas.org) using the e-tranzact method with payment made to the School of Postgraduate Studies account.
- (ii) Application forms for postgraduate programmes are sold for N25,000.00 (Ph. D), N22,500.00 (Masters), and N20,000.00 (PGD) only
- (iii) Specifically, Ph. D candidates should send their Research Proposal to SPGS admissions@futa.edu.ng using surname\_school/dept.doc e.g.

  Ojo\_sos/che.researchproposal
- (iv) Non-FUTA graduates should ensure that the official transcript from their Institutions is directed to the address below (indicating the target Department) latest eight (8) weeks from the date of this advertisement.

THE SECRETARY,
SCHOOL OF POSTGRADUATE STUDIES
ATTN: DEPARTMENT OF......
THE FEDERAL UNIVERSITY OF
TECHNOLOGY,
P.M.B. 704,
AKURE,
ONDO STATE, NIGERIA.

## E. OPENING AND CLOSING DATES FOR APPLICATION

Application forms will be available for completion for eight (8) weeks beginning from **Monday**, 9<sup>th</sup> **May**, 2016.