



# College of Biomedical Engineering & Technology

An arm of Nigerian Institute for Biomedical Engineering

Affiliated to the International Federation for Medical & Biological Engineering



## 2018 CAREER DEVELOPMENT COURSE

<http://www.nigerianbme.org/cbet/course2018>

April 01 - 07, 2018

Akure, Ondo State, Nigeria

# CDC 2018

**A: Fellowship of CBET**

**B: Advanced Biomedical Engineering**

**C: Intermediate Biomedical Engineering**

**D: Basic Biomedical Engineering**

**E: Foundation Biomedical Engineering**

### Course Fees:

Course A - Before Dec 31 2017 = N70,000; After Dec 31 = N80,000

Course B - Before April 01, 2018 = N45,000; After April 01 = N55,000

Course C - Before April 01, 2018 = N35,000; After April 01 = N45,000

Course D - Before April 01, 2018 = N25,000; After April 01 = N35,000

Course E - Before April 01, 2018 = N7,000; After April 01 = N12,000

Non Members - B = N70,000; C = N60,000; D = N50,000; E = N20,000; Overseas - \$600

### Certification Fees:

Fellows ( Annual Re-Certification) = N5,000; Members/Graduates/Associates I & II = N2,000

Annual Certification (Non-Graduating Students) = N1,000

Graduating Students: Induction fee = N20,000; Certification / Professional Exams = N10,000

The Career Development Course is an important programme of the College, which it uses to develop members career and to bring the participants technical and professional knowledge up to date with current views of biomedical engineering and technology at the global level. It is mandatory for every NABET or CBET member seeking for Fellowship of the College, *FCBET*.

Traditionally, the CDC is divided into 5 parts A-E. Part A is Thesis defense for the prestigious *FCBET*. Part A candidates would have completed other requisite parts of the professional programme.

Part B is the Advanced Biomedical Engineering to take care of the advanced levels and cadres of professionals in biomedical engineering and technology. To qualify for Part B, candidates must have passed the Intermediate Biomedical Engineering professional examinations.

Part C is the Intermediate Biomedical Engineering to take care of the intermediate levels and cadres of professionals in biomedical engineering and technology. To qualify to take this part, candidates must have passed the Basic Biomedical Engineering professional examinations.

Part D is the Basic Biomedical Engineering taking take care of the initial levels of professionals in bme. Every new graduate entrant into the professional course is expected to take this

Part E is the Foundation Biomedical Engineering. Undergraduates of tertiary institutions and unskilled workers in the field of biomedical engineering and technology are expected to take this part to give them the foundation they need in the field.

## **CDC 2018 A: Fellowship of CBET**

Applications are invited from suitably qualified candidates for their Fellowship Defense leading to award of Fellowship of the College in:

- i. Faculty of Biological Engrg & Technology (Bioengrg/Biotechnology)
- ii. Faculty of Medical Engineering & Technology
- iii. Faculty of Clinical Engineering & Technology
- iv. Faculty of Rehabilitation Engineering & Orthotics
- v. Faculty of Biomedical Physics & Allied Sciences

To qualify to apply for *FCBET*, the person should have:

- i. been in the class of Members (MCBET) for a period of seven yrs
- ii. had not < 15 years of experience in a superior responsibility in bme and t or in the professional practice allied to bme & t
- iii. passed all CBET Professional exams up to Advanced bme

## **Instructions and Requirements**

- i Applications to get to College Secretariat on/before Dec. 31, 2017
- Download Application Forms from: <www.nigerianbme.org/cbet>
- ii. All applications must be accompanied by teller for payment
- iii. Successful applicants to be assigned Supervisor by Jan15, 2018
- v. Candidates to submit Thesis/Dissertation on/before Feb 28,2018
- vi. Final Defense takes place in Ondo State between Apr 3-5, 2018.

## **CDC 2018 B: Advanced Biomedical Engineering**

Participants here will choose courses from their respective faculties in addition to the general courses

### **Course Content**

#### **General Courses**

- \* Adv. Bme & Emerging Techniques
- \* Physiol Syst Mod.& Simulatn
- \* Technical Reports and Research
- \* Adv. Bme Laboratory

#### **Biological Engineering (Biotechnology)**

- \* Advanced Bioinformatics
- \* Ethico-legal Issues in Biotechnology
- \* Technologies in Pharmaceutical biotechnology
- \* Bio-compatibility in biomaterials

#### **Medical Engineering**

- \* Advanced Instrumentation Systems
- \*Medical Informatics and e-Health
- \* Biomedical Systems Analysis
- \* Fundamentals of Safety Engineering

#### **Clinical Engineering**

- \* Advanced Clinical Engineering Systems
- \* Computerization of the Health Systems
- \* Equipment Management & Pathogens
- \* Issues in Clinical Engineering

#### **Rehabilitation Engineering & Orthotics**

- \* Orthopaedics, Psychology and Rehabilitation engineering
- \* Application of Bioregenerative Engineering to Organ Systems
- \* Sensory Organ Replacement & Repair
- \*. Limb and Girdle Orthotics

#### **Biomedical Physics & Allied Biomed Engrg**

- \* Plasma and Molecular Biophysics
- \* Nuclear Medicine Imaging
- \* Therapeutic Imaging Technologies
- \* Advanced Bio-Nanotechnology

## **CDC 2018 C: Intermediate Biomedical Engineering**

### **Intermediate Biomedical Engineering I**

#### **General Courses**

- \* Intermed Bme and Tech. I
- \* Intermed. Bme Laboratory I

#### **Biological Engineering (Biotechnology)**

- \*. Cell and Tissue engineering
- \* Applications of Bioinformatics
- \* Bio-Pharmaceutical Engrg & Tech
- \* Introductory Nanobiotechnology

#### **Medical Engineering**

- \* Fundamentals of Medical Electronics
- \* Applications of Computers to Medicine
- \* Troubleshoot'g of Biomedical Equipment
- \* Intro to Biomedical Engineering Design

### **Intermediate Biomedical Engineering II**

#### **General Courses**

- \* Intermediate Biomedical Engineering and Technology II
- \* Intermediate Biomedical Engineering Laboratory II

#### **Clinical Engineering**

- \* Development of Clinical Engineering
- \* Health Technology Management
- \* Risk mgmt & Safety of Medical Eqpmt

#### **Rehabilitation Engineering & Orthotics**

- \* Intro to Bio-regerative Engrg
- \* Total Joint Replacement
- \* Psycho-physiotherapeutic Techniques

#### **Biomedical Physics & Allied Biomedical Engineering**

- \* Medical Imaging Techniques
- \* Medical Laboratory Systems
- \* Biological Effects of Radiation

## **CDC 2018 D: Basic Biomedical Engineering**

### **Basic Biomedical Engineering I**

#### **General Courses**

- \* Basic Bme & Technology I
- \* Basic Biomed Engrg Lab. I

#### **Biomedical Science**

- \* General Pharmacology for BME
- \* General Pathology for Biomedical Engrg
- \* Genetic and DNA Theory
- \* Occupation Health Standards

#### **Engineering Sciences**

- \* Basic Electricity & Electronics
- \* Engineering Thermodynamics
- \* Materials Engineering
- \* Computer Engrg & Information Systems

### **Basic Biomedical Engineering II**

#### **General Courses**

- \* Basic Bme & Technology II
- \* Basic Biomed Engrg Lab. II

#### **Bio-Engineering**

- \* Transport Phenomena in Biomedical engineering
- \* Biosystems of the Human Body
- \* Engineering Analysis of Living Systems
- \* Biological Control Systems

#### **Bio-Medical Technology**

- \* Introduction to Radiation & Imaging Technology
- \* Clinical Engineering Technology
- \* Public Health Technology
- \* Human-Computer Interactions

## **CDC 2018 E: Foundation Biomedical Engineering**

### **Foundation Biomedical Engineering I**

#### **General Courses**

- \* Lab. & W/shp Organisat'n I
- \* Foundation Bme & Tech. I
- \* Foundation Biomedical Engineering Laboratory I

#### **Biology and Biological Sciences**

- \* Living and Non-living Things
- \* The Biology of Man
- \* Cell and Molecular Biology

#### **Chemistry and Chemical Sciences**

- \* Physical Chemistry
- \* Polymer Chemistry
- \* Electrochemistry

#### **Physics and Physical Sciences**

- \* Light & Optics
- \* Magnets & Magnetism
- \* Nuclear & Quantum Physics

### **Foundation Biomedical Engineering II**

#### **General Courses**

- \* Laboratory and Workshop Organisation II
- \* Foundation Biomedical Engineering and Technology II
- \* Foundation Biomedical Engineering Laboratory II

#### **Mathematics & Mathematical Sciences**

- \* Complex Numbers
- \* Matrices and Vectors
- \* Integration

#### **Computers and Applications**

- \* Introduction to Computer Studies
- \* Human-Computer Interface
- \* Artificial Intelligence and Robotics

#### **Statistics and Applications**

- \* Foundations of Inferential Statistics
- \* Descriptive Statistics
- \* Probability

### **Foundation Biomedical Engineering III**

#### **General Courses**

- \* Laboratory and Workshop Organisation III
- \* Foundation Biomedical Engineering and Technology III
- \* Foundation Biomedical Engineering Laboratory III

#### **General Studies**

- \* Nigerian Culture, Government and Political System
- \* Peace and Conflict Resolution
- \* Seminars and Presentation Techniques

#### **Entrepreneurship**

- \* The emerging entrepreneur
- \* People, Organisation and Leadership
- \* Inventory Control Model

#### **Introductory Biomedical Engineering**

- \* Core knowledge areas of biomedical engineering
- \* Choosing a Career in BME
- \* CBET, Professional Societies & Career Development

### **Profession Examination Fees**

#### **CDC 2018 A: Fellowship of CBET**

\* Fellowship of the CBET = N80,000

#### **CDC 2018 B: Advanced Biomedical Engineering**

\* Advanced Biomedical Engineering I = N20,000

#### **CDC 2018 C: Intermediate Biomedical Engineering**

\* Intermediate Biomedical Engineering I = N12,000

\* Intermediate Biomedical Engineering II = N15,000

#### **CDC 2018 D: Basic Biomedical Engineering**

\* Basic Biomedical Engineering I = N8,000

\* Basic Biomedical Engineering II = N10,000

#### **CDC 2018 E: Foundation Biomedical Engineering**

\* Foundation Biomedical Engineering I = N2,000;

\* Foundation Biomedical Engineering II = N4,000;

\* Foundation Biomedical Engrg III = N6,000

### **Payment of Professional Examination Fees**

All payments should be made into the College bank account as follows:

Name of Acct: College of Biomedical Engineering & Technology

Name of Bank: Diamond Bank Nigeria Plc.

Account No: 0032778196.

Sort Code: 063100170.

### **The College Registrar**

For more information on the College Professional Examinations and Certifications contact:

Engr. Dr Kenneth I. Nkuma-Udah, FCBET <08027233371>

The Registrar,

College of Biomedical Engineering & Technology,

c/o Department of Biomedical Technology

School of Health Technology

Federal University of Technology

P.M.B 1562, Owerri, Nigeria

Email: [infocbet@nigerianbme.org](mailto:infocbet@nigerianbme.org)

web: <http://www.nigerianbme.org/cbet/course2018>

### **Certification Fees:**

#### **Membership Categories:**

\* Fellows (Annual Re-Certification)  
= N5,000;

\* Members/Graduates/  
Associates I & II  
= N2,000

#### **Students:**

\* Annual Certification  
(Non-Graduating Students)  
= N1,000

\* Graduating Students:  
- Induction fee = N20,000;  
- Certification / Professional  
Examinations = N10,000

## **Provisional Programme: CDC 2018 A-D**

<b>Day 1</b>	<b>Sunday 1st April, 2018</b>
9.00am	Arrival
6.00pm	Meeting of CBET Council with LOC
<b>Day 2</b>	<b>Monday 2nd April 2018</b>
8.00am	Arrival/Registration/ Technical Exhibitions
9.30am	Courtesy call by Council to Distinguished Personalities
10.30am	Opening Ceremony
11.30am	Coffee Break
12.00nn	1st Technical Session
2.00pm	Lunch Break
3.00pm	1st Practical Session
4.00pm	2nd Technical Session
5.00pm	Variety Evening and Close of Day 2
<b>Day 3</b>	<b>Tuesday 3rd April, 2018</b>
8.00am	Registration/ Technical Exhibitions
9.00am	3rd Technical Session
11.00am	Coffee Break
11.30am	4th Technical Session
2.30pm	2nd Practical Session
3.30pm	Lunch Break
4.30pm	Social Evening
5.00pm	CBET Council Meeting and Close of Day 3
<b>Day 4</b>	<b>Wednesday 4th April, 2018</b>
8.00am	Registration/ Technical Exhibitions
9.00am	Revision
11.00am	Coffee Break
11.30am	Professional Examination
12.30pm	Field Work
4.00pm	Lunch Break
5.00pm	Close of Day 4
<b>Day 5</b>	<b>Thursday 5th April 2018</b>
8.00am	Registration/ Technical Exhibitions
9.00am	Closing Breakfast, Award of Certificates, CBET General Meeting and Publication of Provisional Results of Professional Examination
1.00pm	Departure.

## **Provisional Programme: CDC 2018 E**

<b>Day 1</b>	<b>Tuesday 3rd April 2018</b>
9.00am	Arrival
<b>Day 2</b>	<b>Wednesday 4th April, 2018</b>
8.00am	Arrival/Registration/ Technical Exhibitions
12.30pm	Field Work
4.00pm	Lunch Break
5.00pm	Students Wing Presentation and Close of Day 2
<b>Day 3</b>	<b>Thursday 5th April, 2018</b>
8.00am	Registration/ Technical Exhibitions
9.00am	Opening Ceremony and CBET General Meeting
11.30am	Coffee Break
12.00nn	1st Technical Session
2.00pm	Lunch Break
3.00pm	1st Practical Session
4.00pm	2nd Technical Session
5.00pm	Variety Evening and Close of Day 3
<b>Day 4</b>	<b>Friday 6th April, 2018</b>
8.00am	Registration/ Technical Exhibitions
9.00am	3rd Technical Session
11.00am	Coffee Break
11.30am	4th Technical Session
2.30pm	2nd Practical Session
3.30pm	Lunch Break
4.30pm	Social Evening
5.00pm	Close of Day 4
<b>Day 5</b>	<b>Saturday 7th April, 2018</b>
8.00am	Registration/ Technical Exhibitions
9.00am	5th Technical Session
11.00am	3rd Practical Session
12.00nn	Coffee Break
12.30pm	Revision
2.30pm	Professional Examination
3.30pm	Closing Lunch, Award of Certificates and Publication of Provisional Results of Professional Examination
4.30pm	Departure.

## **Registration Modalities**

Interested persons can register online at:

<<http://www.nigerianbme.org/cbet/course2018/registration.html>>

Any payment made before February 28, 2018 attracts a 10% discount of the early bird course fee payments for the programme.

Institutional registration > or = 50 attracts a 10% discount at the prevalent rate of the time. For more information on this and more contact the Course Coordinator or the LOC Chairman

## Sponsorship, Advertisement and Exhibition

The course holds immense potentials for stake-holding biomedical engineering, pharmaceutical and the oil industries to sponsor items, advertise and exhibit their products and services.

### Sponsorship Options

Programme Halls Rental for 6 days = N600,000.00;

Welcome Cocktail = N600,000.00; Tea break for 6 days = N900,000.00

Opening Ceremony / Other sessions =N300,000.00;

Printing of Course Name tags = N300,000; Lunch for 6 days = N1,800,000.00

Course bags / materials for 300 persons = N600,000;

Closing Luncheon = N600,000.00

Printing of Course programme and Other Publications = N500,000.00

Pre-course announcement in the print and electronic media = N500,000.00

Goodwill messages (by sponsors and well wishers)= N20,000.00 / slot

Donor items, jotters, fliers, memos pads mugs, pens, etc. are available.

Partial Sponsorship is open for any of the items listed above.

### Advertisement

**Black and White:** Full Page = N40,000.00; Half Page = N25,000.00

**Colour:** Full Page = N80,000.00; Half Page = N45,000.00

### Exhibition

**Popular Stand** = N50,000.00;

**Executive Stand** = N100,000.00

For more details on the sponsorship, advertisement and exhibition placements contact the Course Coordinator

## Hotels in and around Akure, Ondo State

S/N	Hotel Name and Address	Rates (? ) per night
1.	Benima Global Hotel Off Iwaro Road, Akungba	From N2,500
2.	Rockyson International Hotel Annex CJB 14 Lokoja Rd, Ikare Akoko, Ikare,	From N4,000
3.	Irun Guest House Falade Close, Ijebi Street, Akungba	From N2,500
4.	Austine Hotel, Ondo Near C.A.C Bolorundaro, Owalusin Iwaro Oka,	From N4,000
5.	Hadock Hotel Supare Akoko, Oka-Akoko	From N3,500
6.	Bolinton Hotel, Nite Club and Event Centre Beside Boye Hotel, Ikar	From N3,000
7.	Rockyson International Hotel CJB/1 Lokoja Road, Ikare,	N2
8.	Rotawa Royal Hotel 60 Igbehinadun Street, Ayepe Quarters, Oka-Akoko	F N2,500
9.	Isale Igbagbo Guest House Oyin-Omuo Road, Okeagbe Akoko	From N1,700
10.	Dee-Law Hotel No 4, Odoko Street, Afa, Okeagbe	From N1,500.

### Course Organisation

#### Course Coordinator

Engr. Kennedy O. Ejeta, FCBET  
<08038795184>

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School of Health Technology

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Email: [infocbet@nigerianbme.org](mailto:infocbet@nigerianbme.org)

web: <http://www.nigerianbme.org/cbet/course2017>

#### Course Secretariat

c/o LOC Chairman,

DrVincent A. Akpan

Department of Biomedical Technology

Federal University of Technology, Akure,

Ondo State.<07031351144>