

A University in Transition:

Engineering Accreditation for a Sustainable Economy EASE



In Collaboration with



FACULTY OF ENGINEERING & TECHNOLOGY
ABET ACCREDITATION COMMITTEE



WHY ACCREDITATION?

Accreditation Board for Engineering and Technology (ABET) is a U.S.-based accreditor of university programmes in applied science, computing, engineering and technology

- ✓ It assures post-secondary education meets established quality standards
- ✓ ABET works alongside Guyana's higher education quality assurance organization (NAC)
- ✓ It provides periodic external assessment and evaluation through the programme's continuous improvement (CI) process



CONTINUOUS QUALITY IMPROVEMENT (CQI)

An educational program CQI process must define:

- ✓ Mission
- ✓ Constituents (students, faculty, alumni, employers, IAB)
- ✓ Objectives
- ✓ Outcomes
- ✓ Processes (internal practice to achieve the outcomes)
- ✓ Facts (data collection)
- ✓ Evaluation (interpretation of facts)
- ✓ Closing the loop by follow-up actions



ABET ACCREDITATION PROCESS CRITERIA

A **Self-study Questionnaire** used as a template to address these Programme areas:

Criterion:

- 1 - Students
- 2 - Program Educational Objectives (PEOs)
- 3 - Student Outcomes (SOs)
- 4 - Continuous Improvement (CI)
- 5 - Curriculum
- 6 - Faculty
- 7 - Facilities
- 8 - Institutional Support





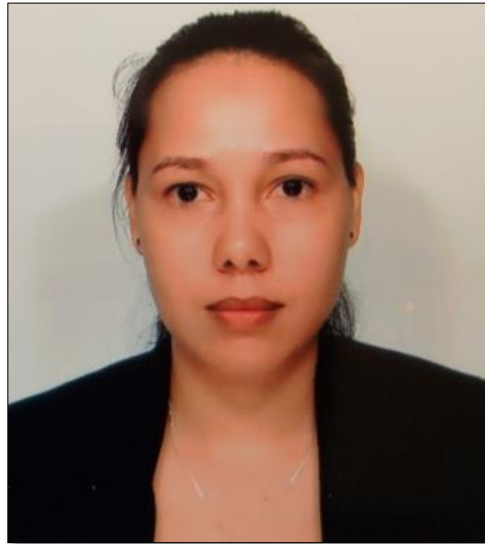
ESTABLISHMENT OF THE ABET COMMITTEE

The Engine Block



Prof. Norman Munroe

The Spark Plug



Dr. Anna Perreira

The Piston



Mrs. Elena Trim

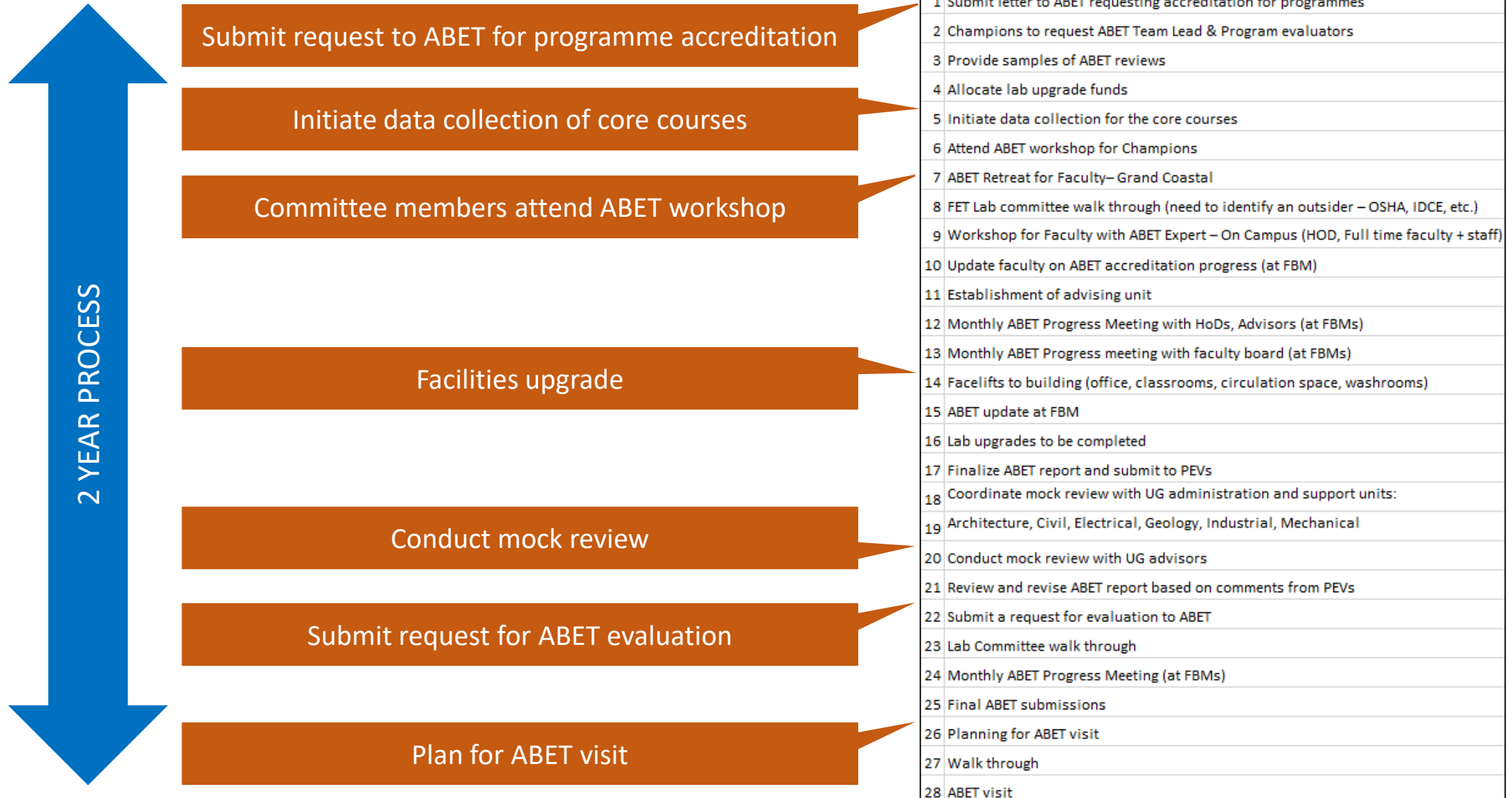
The Gasket



Mr. Anil James



ABET ACCREDITATION TIMELINE





ACCOMPLISHMENTS OF ABET COMMITTEE

STRENGTHS WEAKNESSES OPPORTUNITIES & THREATS (SWOT) ANALYSIS

Without adequate funding and the infusion of resources including facilities, qualified faculty, classrooms, research laboratories, etc. it will not be possible to secure international accreditation of programmes in the FET.

Information gleaned from the SWOT Analysis motivated the preparation of a proposal entitled, "*Engineering Accreditation for a Sustainable Economy (EASE)*" to secure funding for ABET accreditation.



ACCOMPLISHMENTS OF ABET COMMITTEE

Facilities & Equipment Upgrades

- Adequate space for faculty
- Classrooms
- Laboratories
- Drafting Studio
- Computer Laboratory
- Smart Classrooms
- Equipment for Mechanical Workshop
- Materials for 3D printer
- Laboratory equipment (Petroleum & Geological Engineering programmes)





ACCOMPLISHMENTS OF ABET COMMITTEE

Faculty Recruitment & Development

- More qualified faculty
- Enrollment of Faculty in PhD Programmes
- More IT infrastructure and Internet reliability
- Increase student enrollment
- Establish Community Projects
- Develop Graduate Programmes
- Promote Engineering Research





ACCOMPLISHMENTS OF ABET COMMITTEE

Vision Statement

To be a globally and nationally valued, student centered – research and teaching University, that prepares our students to contribute to the balanced development of Guyana and the broader global community.





ACCOMPLISHMENTS OF ABET COMMITTEE

Mission Statement

To be a premier national university that facilitates an environment to face academic freedom and scholarship which allows for free and critical enquiry that empowers our students and staff to discover, generate, disseminate and apply knowledge of the highest standard for service to the community, the nation and all mankind.





ACCOMPLISHMENTS OF ABET COMMITTEE

Strategic Goals

- Be the premier Caribbean university in energy technologies and their applications
- Advance the concepts and technology of our professionals
- Engage the expertise of global professionals
- Foster and recognize best practices in engineering education
- Provide leading, cutting-edge tertiary education focused on sustainability in engineering and the built environment



ACCOMPLISHMENTS OF ABET COMMITTEE

Strategic Objectives

- Focus on obtaining and retaining ABET accreditation
- Recruit and retain the services of highly qualified engineering professionals
- Produce and deliver high quality engineering educational programmes
- Engage the expertise of strategic global partnership and professionals
- Provide cutting edge research and facilities in renewable energy and industrial systems



ACCOMPLISHMENTS OF ABET COMMITTEE

Establish **Programme Education Objectives (PEOs)** aligned with Guyana's strategic foci of green sustainable technologies, agriculture, climate change, mining, and manufacturing.





ACCOMPLISHMENTS OF ABET COMMITTEE

The assessment process used to gather data for the evaluation of each **student outcome** requires input from: **Industry committee advisory meetings**
(ABET Self Study Questionnaire, 2018)

Developed

Terms of Reference for IAB

- Professional Advisors
- Departments Advisory Board

Established

Student working group

- Purpose
- Student portfolios





ACCOMPLISHMENTS OF ABET COMMITTEE

Update: Student Working Group & Departments Advisory Board

Three meetings held with the student working group:

- Formation
- Guidance on collection of data
- Student consultation (online)

Formation of IABs is a work in progress

- Departments: Mechanical, Electrical, Civil, Architecture & Industrial
- Support from Industry & Alumni



YOUR CONTRIBUTION TO ACCREDITATION

CONSTITUENCIES' SURVEY

Thank you for the support !