



Loughborough
University

MSc Sustainable Design and Construction

School of Architecture, Building and Civil
Engineering

Professor Mohamed Osmani

MSc Sustainable Design and Construction Programme Director

Accolades



**1ST IN THE UK
FOR BUILDING**

THE TIMES AND SUNDAY TIMES
GOOD UNIVERSITY GUIDE 2021



**1ST IN THE UK FOR BUILT
ENVIRONMENT**

FOR THE VITALITY AND SUSTAINABILITY OF
THE RESEARCH ENVIRONMENT REF 2014

Accreditations

The programme is seeking accreditation from:

- Chartered Institute of Building (CIOB)
- Joint Board of Moderators (JBM): Institution of Structural Engineers (IStructE), Institution of Civil Engineers (ICE), Chartered Institution of Highways and Transportation (CIHT), Institute of Highway Engineers (IHE)



CIOB

IStructE



**INSTITUTE OF
HIGHWAY
ENGINEERS**

ice
Institution of Civil Engineers

Research areas

Architecture & Building

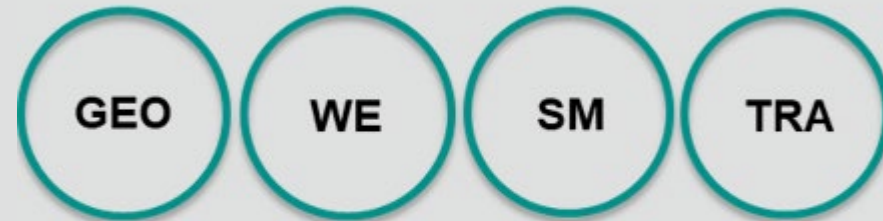


Architecture

Building Energy Research Group

Construction Management
inc. Quantity Surveying

Civil Engineering



Geotechnics and Geomatics

Water Engineering inc. WEDC

Structures and Materials

**Sustainability &
Circular Economy**

Our academics

- Dr David Allinson: <https://www.lboro.ac.uk/departments/abce/staff/david-allinson/>
- Professor Patricia Carrillo: <https://www.lboro.ac.uk/departments/abce/staff/patricia-carrillo/>
- Dr Peter Demian: <https://www.lboro.ac.uk/departments/abce/staff/peter-demian/>
- Dr Vanda Dimitriou: <https://www.lboro.ac.uk/departments/abce/staff/vanda-dimitriou/>
- Dr Mahroo Eftekhari: <https://www.lboro.ac.uk/departments/abce/staff/mahroo-eftekhari/>
- Professor Alistair Gibb: <https://www.lboro.ac.uk/departments/abce/staff/alistair-gibb/>
- Dr Ruodan Lu: <https://www.lboro.ac.uk/departments/abce/staff/ruodan-lu/>
- Professor Mohamed Osmani: <https://www.lboro.ac.uk/departments/abce/staff/mohamed-osmani/>
- Professor M. Sohail: <https://www.lboro.ac.uk/departments/abce/staff/m-sohail-khan/>

Facilities

- State-of-the-art classrooms
- Geotechnical laboratories
- Concrete testing
- 3D concrete printing robots
- 3D Fab Lab and VR suite
- Hygrothermal test facility
- Modelling and prototyping laboratory
- Flood plain modelling
- Massive flume (0.33m³/sec)
- Salt bath
- Rainfall simulator
- Water engineering lab
- Environmental chamber
- Type 2 microbiological lab
- Solar simulator
- Daylight modelling laboratory
- Sports surface testing laboratory



Programme introduction

- This programme is part of our other Construction master's programmes that are the **longest established in the UK** and the second oldest in the world
- Teaching delivery is informed by **world-leading research** on sustainability, energy efficiency and circular economy
- The programme builds on the ever-growing global sustainability agendas, including the **UN Sustainable Development Goals (SDGs)**
- It emphasises the practical application of sustainability in construction projects
- It provides students with the additional opportunity to gain the **Building Research Energy Environmental Assessment Methodology (BREAAAM)** qualification

Programme structure: Semester 1

Digital Buildings in a Global Design Context (15 credits)

Research Methods (15 credits)

Principles of Design and Construction (15 credits)

Sustainable Design and Construction Theories, Principles and Assessment Tools (15 credits)

Research Dissertation (60 credits)

Programme structure: Semester 2

Compulsory modules

Low Energy Building Design (15 credits)

Integrated Sustainable Design and Construction Project (15 credits)

Research Dissertation (60 credits)

Optional modules

Design Management (15 credits)

Management of Construction Processes and Techniques (15 credits)

Federated Building Information Modelling (15 credits)

Industry partnerships

- This programme's modules include at least one industry guest speaker
- Unrivalled industry links

AECOM  **bam**  **mace**

GallifordTry plc **SKANSKA** **VINCI** 

**MORGAN
SINDALL**

Balfour Beatty
Construction

 **Barhale**



Career prospects

This programme is:

- uniquely dedicated to developing construction managers' knowledge and expertise in **sustainable construction**
- bespoke for those seeking to emerge as **sustainability leaders** in the international construction industry

You'll have access to:

- Multiple **careers fairs** on campus attracting over 100 employers
- Dedicated **engineering careers fair**
- **Careers Network** that gives dedicated support and resources for career planning and job hunting

Our graduates

Our record of graduate destinations is exemplary, with our graduates progressing to senior industrial positions or further study.

AZCOM



SKANSKA

MURPHY

 **Barhale**

 **mace**

 **bam**

 **inco**
PROJECTS

 GallifordTry plc

Balfour Beatty
Construction

MORGAN
SINDALL

Thank you