



## PhD Scholarship in Civil Engineering

### School of Engineering, University of Galway, Ireland

The **Timber Engineering Research Group (TERG)** at University of Galway invites **applications** for a funded-PhD position in Civil Engineering under the supervision of Dr Patrick J. McGetrick in the [School of Engineering](#).

This position is part of the **BIOFABRICATE project** (Integrated BIO-based Innovations for Sustainable Manufacturing, Construction, and Pharmaceutical Applications from Irish Forest Biomass), funded by the Irish Department of Agriculture, Food and the Marine (DAFM) under the 2025 Thematic Research Call (Project Ref: 2025R\_544). The project is led by University of Galway and involves collaboration with Trinity College Dublin, Technological University Dublin, Atlantic Technological University Galway, Dublin City University and Teagasc, and six industry partners.

#### Project Background:

BIOFABRICATE aims to develop and validate advanced bio-based materials, products and technologies from the growing supply of Irish forest biomass, for applications in engineered timber construction, manufacturing, food packaging and pharmaceuticals. Key project areas include:

- Low-emission pulping to produce micro- and nanocrystalline cellulose
- Development of bio-based adhesives and coatings from lignin, tannin, proteins, and microbial processes
- Enhancement of material performance (durability, fire resistance, moisture resistance), including prototyping and testing engineered wood product (EWP) applications
- Investigation of fungal-derived biocoatings with fire-retardant and antimicrobial properties
- Adhesive-free design approaches for disassembly and reuse,
- Lifecycle assessment to evaluate environmental, technical, and economic performance

#### Project Outline:

This PhD will focus on the structural design, fabrication and large-scale experimental performance validation of engineered wood products (EWPs) using native Irish hardwoods and biobased materials. This research will include:

- Mechanical characterisation of Irish timber species
- Development and testing of timber elements and assemblies
- Application in the built environment in Ireland, with consideration for deconstruction and reuse

The successful candidate will work within a multidisciplinary team, collaborate with industry partners and will have access to state-of-the-art testing facilities at University of Galway.

#### Required Skills / Qualifications/ Aptitudes:

- Bachelor's or Master's degree (minimum 2.1 grade or equivalent) in Civil, Structural or Timber Engineering (or a closely related discipline)
- Knowledge of structural design principles
- Experience in technical report writing
- Experience in experimental testing of materials or structures



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**TERG**  
Timber Engineering Research Group



An Roinn Talmhaíochta,  
Bia agus Mara  
Department of Agriculture,  
Food and the Marine

### Specific Requirements:

- Strong analytical and critical thinking skills
- Excellent English communication skills, in particular, report writing and presentation skills
- High attention to detail and strong organisational ability
- Ability to manage a complex workload and meet deadlines
- Excellent interpersonal skills

### Funding:

The scholarship will be awarded for a maximum period of 4 years (2026 – 2030)

*Funding will cover the following for eligible applicants:*

- A tax-free stipend of €25,000 per annum
- EU tuition fees
- Travel, consumables and materials budget

### Application:

Please submit a **single PDF** containing a cover letter and CV to Dr Patrick McGetrick:

[patrick.mcgetrick@universityofgalway.ie](mailto:patrick.mcgetrick@universityofgalway.ie)

**Email subject line:** *PhD Application – BIOFABRICATE*

(N.B.: Applications without this subject line may not be recorded)

**Closing date:** 17:00 on Tuesday 30 June 2026.



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Trinity College Dublin  
Coláiste na Tríonóide, Baile Átha Cliath  
The University of Dublin

