Department	School of Computing
Supervisors	Dr Zakwan Jaroucheh, Dr Baraq Ghaleb
Project Title	Blockchain Technology and Decentralised Finance (DeFi) : The Bridge to the Future of Finance

PROJECT DESCRIPTION

Blockchain and Distributed Ledger Technology (DLT) provide building blocks of the so-called "Internet of Value", since they enable recording of interactions and transfer "value" referring to any record of ownership of asset - for example, money, securities, land titles – and ownership of specific information like identity, health information as well as other personal data. Blockchain enables communities, the decentralised Web, token economies, and global peer-to-peer payment. As an alternative to the restrictive, centralised, and centuries-old traditional financial system that much of the world is familiar with today, Decentralized Finance, also known as "DeFi," is a developing open and worldwide phenomenon. DeFi gives everyone with a smartphone and an internet connection the chance to invest, borrow, lend, and trade their money according to their own terms. DeFi places people at the core of a peer-to-peer financial system operated on open-source blockchains like Ethereum, eliminating the need for banks to serve as intermediaries. DeFi technology has advanced significantly in recent years, although more research is still needed in this area.

We, at the "School of Computing, Engineering and Built Environment", Edinburgh Napier University, invite candidates from worldwide seeking to pursue research in Blockchain economics to join us in expanding our understanding of fintech, blockchain and DeFi. You will conduct interdisciplinary research that combines computer science and financial economics. You will have good exposure to a network of top-tier scholars as well as various industry partners. Here are some themes (not limited to) for PhD opportunities: 1) the skepticism of traditional banking institutions about forming partnerships with cryptocurrencies, 2) how blockchain technology revolutionized banking and improved the speed of cross-border payments in some countries, 3) the application of cryptocurrencies in blockchain-based crowdfunding, and 4) explore the role of regulation on algorithm design, especially with DeFi.

The School of Computing is ideally located at the beautiful and central Merchiston campus in Edinburgh. You will be supported by the dedicated supervision team, formal challenging and interesting research training classes, world-class social environment with doctoral students and staff from all around the world.

Prospective applicants are encouraged to contact the Supervisor before submitting their applications. Applications should make it clear the project you are applying for and the name of the supervisor(s).

Academic qualifications
A first degree (at least a 2.1) ideally in computer science or closely related discipline with a good fundamental knowledge of blockchain and cryptography but this is not a requirement.

English language requirement
IELTS score must be at least 6.5 (with not less than 6.0 in each of the four components). Other, equivalent qualifications will be accepted. [Full details of the University's policy](#) are available online.

Essential attributes:
- Experience of fundamental computer science with strong programming skills.

- Competent in software engineering fundamentals and preferably cryptography/ math

- Knowledge of Click here to enter text.
- Good written and oral communication skills
- Strong motivation, with evidence of independent research skills relevant to the project
- Good time managemen

Enquiries	For informal enquiries about this PhD project, please contact Click here to enter text.
Web page	https://www.napier.ac.uk/research-and-innovation/research-degrees/application-process