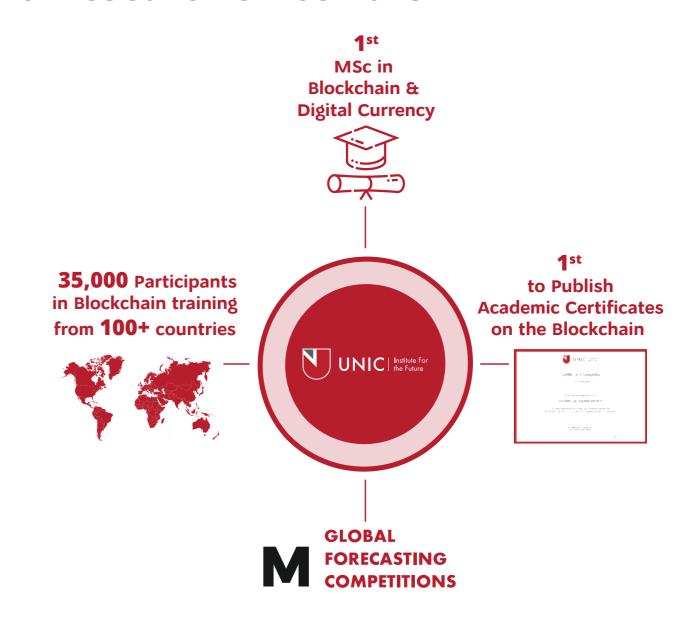


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## **Leading Blockchain Education & Research Since 2013**







ONLINE MSc
DEGREE DIGITAL
CURRENCY



ONLINE MSc
DEGREE COMPUTER
SCIENCE & BLOCKCHAIN
TECHNOLOGIES



PROFESSIONAL ONLINE TRAINING COURSES



CUSTOMISED EXECUTIVE TRAINING



BLOCKCHAIN, AI, IOT, AR/VR





DECENTRALIZED CONFERENCE & CHAPTERS



## **IFF Faculty & Fellows**

#### **IFF Governing Board**



Antonis Polemitis CEO, University of Nicosia



**Prof Dimitris Drikakis**VP, Global Partnerships,
University of Nicosia



**Prof George Giaglis** Executive Director, IFF, University of Nicosia



**Prof Spyros Makridakis** Director, IFF, MOFC University of Nicosia



**Prof Soulla Louca**Director, IFF,
University of Nicosia



Prof Marinos Themistocleous
Director, IFF,
University of Nicosia

#### **IFF Visiting Scholars**



**Andreas Antonopoulos** 



Jeff Bandman



**Prof Nassim Nicholas Taleb** 



Stefan Loesch



**Dr Theodosis Mourouzis** 



**Dr Apostolos Kourtis** 



Athanasios Leontaris



Dr George Dotsis



**Dr Dimitrios Tzovaras** 



**Mark Toohey** 



Dr Evi Zamani



**Dr Konstantinos Votis** 

#### **IFF Researchers & Staff**



Prof Maria Michailidis



Dr Klitos Christodoulou



Dr Elias Iosif



Dr Charis Savvides



Dr Ifigenia Georgiou



Dr Ioannis Katakis



Dr Konstantinos Karasavvas



Dr Ariana Polyviou



Leonidas Katelaris



Marios Touloupos



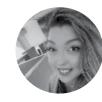
Demetrios Tseas



Eugenia Kapassa



Valentinos Theofilou



Irene Patrikios



George Ioannou



Nick Assimenos

**Yiannis** 

Menelaou



Socrates Mina



Elena Kontemeniotis



Maria Charalambous



Kristina Arapidou



Antonis Inglezakis



Gamaliel Dafe Tuoyo



Natasha Der Avedissian



Gary Mulder



## **Free MOOC on Digital Currencies**

Taught by Andreas Antonopoulos and Antonis Polemitis Attended by 35,000 students since 2014

Course name:	DFIN-511: Introduction to Digital Currencies
Duration:	12 weeks
Mode of study:	Distance Learning/Online
Language of instruction:	English
ECTS credits:	10

Introduction to Digital Currencies covers both a technical overview of decentralised digital currencies (e.g. Bitcoin) as well as their broader economic, legal and financial context.

The course starts with a basic technical overview of Bitcoin and then further explores the potential financial and non-financial changes that cryptocurrencies of this type can enable.



#### **5 REASONS TO REGISTER for the free MOOC:**

- **CONTINUOUSLY UPDATED** to keep up with current advances
- 2 TAUGHT BY CRYPTOCURRENCY EXPERTS
  Andreas Antonopoulos and Antonis Polemitis
- **3** FREE REGISTRATION and enrollment
- PERSONAL SUPPORT
  O&A and flexible schedule
- **JOIN OUR LARGE COMMUNITY** of present and former students (35,000)

## **MSc in Digital Currency**

The first university degree in the world in Blockchain & Digital Currency

Course name:	Master of Science in Digital Currency
Duration:	3 semesters or 1 calendar year
Mode of study:	Distance Learning/Online
Language of instruction:	English
ECTS credits:	90 (9 modules)

The MSc in Digital Currency is the first- and best-degree programme globally on decentralised digital currencies and blockchains (distributed ledger technology). By participating in this programme, students are positioning themselves to be part of an exclusive set of professionals in business, law, startups, government and IT that have a broad understanding of the financial, technical, regulatory, cryptographic and game theoretic aspects of this technology.



The MSc Digital Currency program is a MUST in order to gain the skills required to navigate and lead in an emerging tokenized economy. The intersectionality between technology, law, programming value and the application of blockchain was perhaps most stimulating for me. I met the most incredible people along the way, CEOs, physicians, students hungry to learn more. The professors and staff challenged us to do better – thank you!!

Monique J. Morrow, Class of 2019

President, The VETRI Foundation and ex-CTO Cisco Systems

## 5 REASONS TO ENROLL in the MSc in Digital Currency:

- **ACADEMIC QUALITY**
- Taught by leading faculty and practitioners
- STUDENT COMMUNITY
- Join the largest student community in the world (600 students registered since 2014)
- **BECOME A BLOCKCHAIN PROFESSIONAL** 
  - Developer, consultant, regulator, business analyst, financial analyst, startup entrepreneur
- PROFESSIONAL DEVELOPMENT
  - Excellent professional development opportunities among students and the broader UNIC community
- **SCHOLARSHIPS** 
  - Over €300,000 in scholarships annually



## **MSc in Computer Science**

#### **Concentration Blockchain Technologies**

Qualification:	Master of Science in Computer Science
Duration:	3 semesters or 1.5 years
Mode of study:	Distance Learning/Online
Language of instruction:	English
Minimum ECTS credits:	90 (9 modules)

The Master's degree in Computer Science advances the students' knowledge in core areas of computer science beyond the undergraduate level and exposes them to current and emerging trends.

The programme offers a concentration in Blockchain Technologies focused on application of decentralized ledger technology across a wide range of applications.

#### **Profile of the Programme**

The Master's degree in Computer Science prepares the student for a wide variety of computer-oriented careers, such as research, development, management, and teaching. The degree constitutes an independent and terminal study in addition to providing the basis for acceptance to, and continued studies towards a doctoral degree in computer science. The programme has three concentrations: (a) Cyber Security, (b) Mobile Systems and, (c) Blockchain Technologies.

The specialisation in Blockchain Technologies focuses on the fundamentals of digital currencies and the underlying blockchain technology. Emphasis is given on programmable smart contracts and the associated architectures such as Ethereum. The programme aims to prepare students on the potential impact of these technologies on various applications including those based on Artificial Intelligence, Machine Learning and Internet of Things.

#### **Career Prospects**

Graduates of the MSc programme should be able to:

- Hold managerial positions in the ICT industry or government offices;
- Become senior technical developers or administrators in the ICT marketplace;
- Become entrepreneurs and establish their own enterprises;
- Continue studying towards a doctoral degree
- Work as senior Blockchain engineers developing new decentralised solutions
- Work as Blockchain Architects designing new blockchain systems
- Hold positions like Blockchain Advisors or Consultants

## The MOFC

The Makridakis Open Forecasting Center (MOFC)

The MOFC, known as the Makridakis Open Forecasting Center, is lead by IFF Director, Prof Spyros Makridakis—a pioneer in the field and, for many, a founding figure in forecasting—Prof Maria Michailidis, Mr Gary Mulder, and a number of associates. The vision of The MOFC is to improve, as much as possible, the accuracy of forecasting as well as the correct estimation of uncertainty and to offer specific suggestions on how such improvements can be made and how to rationally deal with the ensuing risks. Its mission is to expand the utilization of forecasting in business firms by identifying their needs, suggesting the most appropriate way of fulfilling them, demonstrating its benefits in reducing costs and/or improving profits while also avoiding untested practices.

One of the MOFC's main activities is the organisation of the M-Competitions. These have attracted great interest by both academics and practitioners and have provided objective evidence of the most appropriate way of forecasting in many forecasting applications in the business world and non-profit organisations.

### M4COMPETITION Sponsored by: Uber amazon Google







Organised by	Teams	Time Series	Best Method
UNIC	200+	100,000	Hybrid
Award Winners		Affiliation	
1st Place: Slawek Slym		Uber Technologies	
2 <sup>nd</sup> Place: Pablo Montero-Manso and team		University of Coruna and Monash	
3 <sup>rd</sup> Place: Maciej Pawlikowski		ProLogistica	

The results of the M4 Competition were presented at a Forecasting Conference, co-sponsored by UNIC and NYU, with keynotes by Prof Makridakis and Prof Nassim Taleb, with a focus on how to manage uncertainty in forecasting.

### M5 Competition

The M5 is the latest of the M Competitions. It will start on January 1, 2020, and end in May of the same year. It will use real-life data from two big companies, Nestle and Walmart and will be ran using Kaggle's Platform. It will offer substantial prizes totalling \$100,000 to the winners.

There will be the following four major prizes for:

- The most accurate forecast for the Nestle data
- The most accurate forecast for the Walmart data
- The most precise estimation of the prediction intervals for the Nestle data
- The most precise estimation of the prediction intervals for the Walmart data

There will be no limit to the number of prizes that can be won by a single participant or team.

An innovation of the M5 will be to expand the type of participants to include practitioners. In order to achieve such an objective, a different sort of competition will be available for the practicing participants who will not be able to forecasts and provide prediction intervals for all the 20,000 series. Instead, there will be several options available for them to participate by using a smaller number of series or concentrating on some specific aspect of the competition, such as predicting intermittent inventory demand, forecasting the top level or each product category, or specializing in some specific subcategory that their firm would like to concentrate its efforts and improve its forecasting accuracy/uncertainty. The emphasis on company specific competitions will be on how to best learn to apply forecasting methods and to determine how well their forecasts are in comparison to those of experts, as well as to those of other companies.



## **Professional Online Training**

#### **Professional Online Certificate Courses**

Duration:	Workload:	Mode of Study:	Tuition:
6 weeks	10h/week	Self-paced online training	€2,000

#### Certificate Course 1: Blockchain, Law, Regulation and Policy

Taught by Jeff Bandman, Founder and Principal of Bandman Advisors

The course explains issues associated with Blockchain, Virtual Currencies and Crypto-assets and analyses topics of high importance for executives, regulators and lawyers such as law, policy and regulation. The course covers the leading edge of regulatory topics that are relevant to business organisations and regulators, such as AML/KYC, taxation, market integrity, customer protection, money transfers, financial inclusion, compliance with regulatory frameworks and issues related to the use of smart contracts. It also focuses on specific use cases from US, Europe, Asia and the Middle East.

#### Certificate Course 2: Security Token Strategy

Taught by Stefan Loesch, Blockchain expert and author

The Security Token Strategy course provides a good understanding of blockchain technology, financial services and its regulations. It explains how blockchain technology disrupts the existing ecosystem, and how to develop and analyse a security token business. The course focuses on practical problems in the security token space and helps the participants to understand how to design new products and services.

## Certificate Course 3: Applied Forecasting: Improving the Accuracy and Value of your Predictions Led by Prof Spyros Makridakis, Director, Institute For the Future, University of Nicosia

Forecasts are needed for setting up inventory levels, constructing production or delivery schedules and in all types of planning: from budgeting to strategic. This course covers all types of forecasts and offers concrete information to business executives on how to improve the accuracy of their predictions. Such information is based on the findings of the M Competitions organised by Spyros Makridakis and the University of Nicosia.

#### Certificate Course 4: Blockchain and Energy

Taught by Dr Ioannis Vlachos, Blockchain and energy expert

This course aims to provide insights on the use cases and respective applications of blockchain technology in the energy sector. The course is self-contained and is designed and developed in such a way that it provides students with all the required notions and aspects related to blockchain technology, power systems and smart grids, as well as the respective applications in their crossroads.

#### **Certificate Course 5:** Blockchain and Cryptocurrencies

Taught by Prof Marinos Themistocleous, Director, Institute For the Future, University of Nicosia

The aim of this course is to offer a deep understanding on Blockchain technology and Cryptocurrencies. The course introduces Blockchain and Cryptocurrencies, assesses the disruptive nature of Blockchain, evaluates how various industry sectors are to be disrupted, analyses issues related to cryptocurrencies, blockchain-based crowdfunding innovation and relevant regulation. It also presents exemplar use studies from various industries and reports lessons learned and implications for practice.

#### Certificate Course 6: Bitcoin, Blockchain and Cryptocurrencies (offered in Spanish)

Taught by Catalina Castro, Educator – Content Creator

The aim of the course is to provide in depth knowledge about Bitcoin, Blockchain technology, and Cryptocurrencies, including how the Bitcoin, Blockchain Technology and Cryptocurrencies systems work. The course also provides an excellent understanding of the scalability problems of this technology and explores current case-studies.

#### **Professional Online Certificate Programmes**

Duration:	Workload:	Mode of Study:	Tuition:
18 weeks 3 courses of 6 weeks each	12h/week	Self-paced online training	€4.860 per programme or €1.620 per course

Professional online certificate programmes are designed for people who want to become competent blockchain professionals but do not wish to embark on a full MSc programme.

Professional Certificate Programmes consist of three courses of the MSc in Blockchain and Digital Currency and are delivered by the same world-class instructors and in the same mode of delivery.

#### **Certificate Programmes:**

- · Blockchain Financial Analyst Certificate Programme
- Blockchain Business Analyst Certificate Programme
- Blockchain Developer Certificate Programme

#### **Customised Executive Training**

- In collaboration with private and public organisations, IFF customises and delivers blockchain related courses
- Courses are customised based on the industry, job function, technology and organisational needs
- The duration of the training courses varies depending on the topic and seniority level
- IFF has delivered many courses to organisations around the world

#### **5 REASONS TO INVEST in IFF Blockchain Training:**

- UNIQUELY POSITION YOURSELF
- in a rapidly growing industry
- **CONSTANTLY UPDATED COURSES** 
  - in place with developments in the technology separating hype from real-work applications
- UNIQUE OPPORTUNITIES
  - for career advancements and growing together with a new industry
- 4 UNDERSTAND THE IMPACT in your sector, before it disrupts your business
- **5** RECEIVE SPECIFIC TOOLS to assess implications for your industry



## Research

#### €5m in competitive European Commission research grants since 2017

#### Areas of Research

- Blockchain
- Artificial Intelligence
- Machine Learning
- Internet of Things
- Virtual and Augmented Reality
- Forecasting

The IFF was founded to explore the hypothesis that exponential technologies will cause rapidly accelerating societal change. Technologies like blockchain and artificial intelligence are highly disruptive, even individually. However, as they reach commercial maturity and start becoming synergistic, they are expected to have compounding effects on the economy, social structures, legal systems, income distribution, governance, education, and warfare - and raise fundamental questions on how future society is organised.

#### **Academic and Research Excellence**

- IFF research is being published in top conferences and journals
- IFF members organise leading conferences, minitracks and tracks
- IFF faculty serves as editors in well-established scientific journals
- IFF participates in R&D projects funded by EU and industry
- Joint research with 100+ organisations
- Large network of academic collaborators
- · Strong contribution to the scientific community
- Accelerating research track record

#### **Representative Research Co-Participants**

MIT	Princeton University	Carnegie Mellon University	Duke
Georgia Tech	The University of North Carolina	University of Oregon	University of Texas
University of Pennsylvania	Haas School of Business	TU Delft	UCL
ETH Zurich	Korea University	Luxembourg University	University of Waterloo
Universitat Wien	University of Belgrade	University of Johannesburg	Haas School of Business
Morgan State University	Northeastern University	WU Vienna	Modul Vienna University
University of Sarajeyo	Vienna University of Technology	IT University of Copenhagen	Franfurt School Blockchain Centre
FGV	Universität Innsbruck	Max-Planck Gesellschaft	RIAT Institute for future Cryptoeconomics
UniKassel Versitat	International Institute of Information Technology	Athens University of Economics and Business	FH Voralberg University of Applied Sciences
New York University	The University of Kansas	Cornell University	Anu College of Law
University of Torino	University of SANTIAGO de Compostela	University of Greenwich	National University of Singapore
The British University of Dubai	Lomonosov Moscow State University	ITMO University	University of Cambridge
Imperial College London	George Mason University	Ranepa	Cranfield University

#### **Ripple University Blockchain Research** Initiative (UBRI)

- UBRI is a partnership between Ripple and top universities around the world
- Goal: Support academic research, technical development and innovation in Blockchain
- 28 universities participate in UBRI including MIT, Princeton, Carnegie Mellon, UCL, Cornell, Penn, Korea University, BarkeleyHaaS, TU Delft

#### Bloxberg

- First international blockchain for science, Initiated by Max Planck Digital Library (MPDL)
- Aim: to securing scientific information online and worldwide with no risk of manipulation through a decentralized blockchain infrastructure "bloxberg"

#### **Austrian Blockchain Centre Project**

- Mission: One-stop-shop for Blockchain R&D
- Goal: Advance the application of Blockchain technology
- Applied research, education and development of use-cases, prototypes, proofs of concepts
- Planned expansion: 50 PhDs in year 4
- Budget: 20 Million Euros for 4 years

#### Hyperledger

• The University of Nicosia-IFF is a Hyperledger Associate Member through the Hyperledger Global Collaboration for advancing crossindustry blockchain technologies

## Block.co

#### A UNIC Case Study for Blockchain Certificate Issuance

#### Research & Innovation:

IFF was the first Globally to develop the technology and the mechanisms for Blockchain Certificate Issuance and Self Verification

All University Diplomas on the Blockchain

> Immutable Records Ease of Validation.

**PDF Certificates** 

Self Contained Files.

First Issuance in 2014

Technology developed by UNIC research faculty and used at multiple universities.

Independently Verified.

#### **Credential Revocation**

The first attempt allowing the revocation of certificates while maintaining a purely decentralised nature.

#### From Theory to Spin Out

- In 2018, the University of Nicosia established Block.co, a pioneer in Blockchain Credentialing applications, with a focus on commercializing the technology
- Block.co transforms the way organisations leverage blockchain technology in the issuance, self-verification and revocation of digital records
- Block.co's SaaS platform is user friendly and supports the issuance of immutable digital certificates
- Block.co's solution can support 15+ industries including education, shipping, insurance, healthcare, public sector, local government
- 15,000+ certificates have been issued so far



## **Decentralized Conference**

#### **Europe's Premier Blockchain Conference**



Powered by



#### **Decentralized Conference**

- Europe's premier annual blockchain conference since 2017
- · Bringing industry & academia together
- · Pre- and post-conference events
- Bottom-up community engagement (Decentralized Chapters)

#### **Decentralized 2017**

In November 2017 the University of Nicosia hosted the most in-depth conference of its kind in Europe.

- 500+ Participants
- 60+ Speakers
- 30+ Sponsors
- 10+ Exhibitors
- 20+ Media Partners
- 50+ Countries

#### **Decentralized 2018**

Decentralized 2018 was held in Athens, Greece, following the previous year's tremendously successful inaugural summit in Cyprus.

- 1,200+ Participants
- 100+ Speakers
- 50+ Sponsors
- 20+ Exhibitors
- 30+ Media Partners
- 50+ Countries

## **Decentralized 2019**

The University of Nicosia is proud to present the 3<sup>rd</sup> annual Decentralized Conference, which will take place in Athens, Greece, on October 30 – November 1, 2019.

Decentralized has established itself as Europe's premier conference on blockchain and digital currencies. Decentralized 2019 will bring together the world's leading business executives and academic experts to debate current trends and future developments across three conference tracks:

#### BUSINESS

Executives, business leaders and policy makers will learn how blockchain and digital currencies will disrupt their business.

#### **TECHNOLOGY**

Professionals from the blockchain and digital currency spaces will debate the latest developments with like-minded experts from all over the world.

#### **2** ACADEMIA

The world's elite researchers will debate what the future will bring to this exciting space.

## Leaders in Blockchain Community Engagement

#### **Decentralized Chapters**

- Operate in 18 countries
- Easy to join

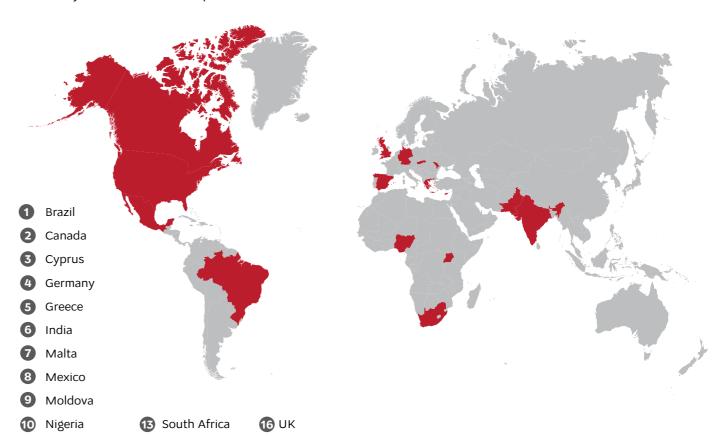
11 Pakistan

Slovakia

4 Spain

15 Uganda

· Easy to create a new chapter



## **IFF & Decentralized Sponsors**

**17** USA

Venezuela

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ODEM Foundation	ORACLE	Puma Pay	PwC UK
SAS	SOFIE Project (Guardtime)	Stelios Americanos & Co. LLC	STOIXIMAN GR
United Coin	VeChain	WhizGrid Ltd	ZEME



# Competition M5 Conference Publications

M5 Conference: December 2020, New York City www.Mcompetitions.unic.ac.cy

