



Vietnamese Intellectual Society in the UK and Ireland
Hội Trí thức Việt Nam tại Vương quốc Anh và Ireland

2022 1st VIS Workshop

Engineering, Computer Science and Interdisciplinary Collaborations

4th March 2022

Link to register for event (free): <https://forms.gle/wrcc5LCKqAYARVeN6>

09:30 – 10:00

Welcome

Welcome/ Introduction to VIS and activities

10:00 – 10:30

Opening Keynote

The UK manufacturing research landscape – some personal reflections

Prof. Duc T Pham, OBE, FREng, FLSW, FSME, BE, PhD, DEng, CEng, FIET, FIMechE
Chance Professor of Engineering, University of Birmingham, UK

10:30 – 11:20

Sharing Talks

10:30 – 11:00

Talk 1: The road from Early Career Researcher to IEEE Fellow: How to build a world-class research group?

Prof. Trung Q. Duong, Fellow of IEEE, Research Chair - UK Royal Academy of Engineering, Chair Professor of Telecommunications, Queen's Uni. Belfast, UK

11:00 – 11:10

Talk 2: Artificial Intelligence and Behavioural Modelling

Prof. The-Anh Han, Professor of Computer Science
Department of Computing and Games, Teesside University

11:10 – 11:20

Talk 3: Operational Research in Transportation

Prof. Trung Thanh Nguyen, Professor of Operational Research in Transportation,
Liverpool John Mores University

11:20 – 11:55

Roundtable Talks/Introductions

3D Printing and advanced manufacturing, Dr Minh-Son Pham, Imperial College London

Human-agent learning, Dr. Long Tran-Thanh, Associate Professor of Computer Science, University of Warwick, UK

Bio-medical research, Dr. Phi-Anh Phan, Associate Professor, University of Oxford

Wireless optical communication, Dr Hoa Le-Minh, Associate Professor, Northumbria University

Other VIS members are welcome to introduce themselves.

11:55 – 12:00 **Coffee Break**

12:00 – 13:00 **Panel Discussion – “Interdisciplinary Collaboration for Research and Funding”**

Chair: Prof. Huan Nguyen, Middlesex University London

Panelists: All speakers + Prof. Hong Bui, Birmingham City University (Management, Strategy & Organisation); Prof. Nguyen T.K. Thanh, University College London (Nanoscience); Prof. Viet-Anh Dang, University of Manchester (Finance), Prof. An Nguyen; University of Bournemouth (Journalism)

VIS hosts: Dr Bang Nguyen, Uni. Cambridge (Finance), Dr Vinh Doan, Uni. Warwick (Business/Maths), Dr Que-Anh Dang, Coventry University (Education/Development), Dr Hoa Le-Minh, Dr Yen Tran, Heriot Watt University (Innovation)

13:00 – 13:15 **(Optional) Networking**

Speakers' Biographies



Duc Truong Pham BE PhD DEng holds the Chance Chair of Engineering at the University of Birmingham where he started his career as a lecturer in robotics and control engineering following undergraduate and postgraduate studies at the University of Canterbury in New Zealand. Before returning to Birmingham in 2011, he was Professor of Computer-Controlled Manufacture and Director of the Manufacturing Engineering Centre at Cardiff University. His research is in the areas of intelligent systems, robotics and autonomous systems and advanced manufacturing and remanufacturing technology. He has published over 600 technical papers and books and has graduated more than 100 PhD students. He is a recipient of several awards including five prizes from the Institution of Mechanical Engineers, a Lifetime Achievement Award from the World Automation Congress and a Distinguished International Academic Contribution Award from the IEEE. He is a Fellow of the Royal Academy of Engineering, the Learned Society of Wales, the Society for Manufacturing Engineers, the Institution of Engineering and Technology and the Institution of Mechanical Engineers.



Trung Q. Duong (Fellow of IEEE) is a Full Professor and Chair of Telecommunications at Queen's University Belfast, UK. He is holding a prestigious title of Research Chair - Royal Academy of Engineering. He is also the recipient of the Royal Academy of Engineering Research Fellowship (2015-2020). He received PhD degree in Telecommunications Systems from Blekinge Institute of Technology, Sweden in September 2012. His current research interests include: wireless communications networks: small-cell networks, ultra-dense networks, and URLLC; IoT to disaster management, smart agriculture, hydrometeorological hazards, healthcare, air-quality, and plastic waste; physical layer security and privacy; real-time optimisation, machine learning, and big data analytics. Since 2005, he has published more than 400 books, book chapters, journal articles and conference papers in these topics. He has been awarded the Best Paper Award at the 77th IEEE VTC, ICC2014, GLOBECOM2016, IEEE DSP2017, IWCMC2019. He has won the prestigious Newton Prize 2017 in the UK. He is listed as one of most-

cited authors across all scientific fields by Scopus (all-time career). He is the editor of a number of IEEE journals and has 13,500+ citations with a h-index of 63 (Google Scholar).



The Anh Han is a Full Professor of Computer Science and Lead of the Center for Digital Innovation at School of Computing, Engineering and Digital Technologies, Teesside University. His current research spreads several topics in AI and interdisciplinary research, including (evolutionary) game theory, incentive and behavioral modelling, agent-based simulations, and AI development/safety behaviour modelling. He has published over 100 peer-reviewed articles in top-tier Computer Science conferences and high-ranking scientific journals. He regularly serves in programme committees of most of top-tier AI conferences (e.g., IJCAI, AAAI, AAMAS) and is on the Editorial Boards of several international journals (e.g., Plos One, Adaptive Behavior). He was awarded prestigious research fellowships and grants (as Principal Investigator) from the Future of Life Institute, Leverhulme Trust Foundation, and FWO Belgium.



Trung Thanh Nguyen is a Professor of Operational Research in Transportation and a co-director of the Liverpool Logistics, Offshore and Marine (LOOM) Research Institute, which is a leading research institute in risk assessment, safety analysis, and transport/logistics. He is leading the Smart Green Things group, a research and development group on optimisation/simulation, operational research, data analytics, machine learning with focuses on active travel, maritime, transport (rail and road), logistics, IoT and smart cities problems. His group is helping industry and local authorities to improve operations and solve various problems such as: Smart, data-powered solutions for public transportation, especially passenger rail; Smart IoT sensors and smart city solutions to improve transportation operations, well-beings and air quality; Data analytics, optimisation and artificial intelligence to promote active travel (cycling and walking); Optimisation solutions to improve maritime port operations; Simulation to understand what-if scenarios for ports, airports, train stations, and universities; Machine learning-based prediction to improve traffic congestion on roads and reduce delays on rail and buses. He has attracted over £2.7M external grant funding to LJMU (£1.7M as Principal Investigator). He has lead/been leading 16 externally funded projects as Principal Investigator.



Minh-Son Pham is a Senior Lecturer in the department of Materials, Imperial College London. Previously, he was a Research Associate at Carnegie Mellon University and a Guest Researcher at NIST from 2013 to 2015. He obtained a Doctor of Science degree from the Swiss Federal Institute of Technology (ETH) Zurich with distinction - ETH Medal in 2013. He joined Imperial in Dec. 2015 as a research fellow, was made Lecturer in 2018 and Senior Lecturer in 2021. His ground-breaking research has been published in Nature, Nature Communications, J. of Mech. and Phys. of Solids, Int. J. of Plasticity, etc. He has delivered > 15 invited lectures at international conferences and currently leads a research group of 10 PhD students and 2 postdocs to carry out fundamental research in additive manufacturing (ie 3D printing) and digital manufacturing, microstructure, mechanical integrity and meta-materials. He establishes strong collaborations with industries across different sectors from aerospace, gas & oil, defence, automobiles, medical devices (orthopaedics and atrial fibrillation treatment) and energy (including fusion with CCFE) to help tackling challenges related to reliability, functionality, sustainability and environmental issues in these sectors. Dr. Pham is an associate editor for Journal of Micromechanics and Molecular Physics and a member of editorial board of Metal and Materials International. He is sitting at multiple scientific committees (including London Materials Society, Additive Manufacturing Benchmarking).



Long Tran-Thanh is an Associate Professor in Artificial Intelligence at the University of Warwick. Long has been doing active research in a number of key areas of Artificial Intelligence and multi-agent systems, mainly focusing on multi-armed bandits, game theory, and incentive engineering, and their applications to crowdsourcing, human-agent learning, and AI for Good. He has published more than 80 papers at top AI/ML

conferences (AAAI, AAMAS, ECAI, IJCAI, NeurIPS, UAI) and journals (JAAMAS, AIJ), and have received a number of prestigious national/international awards, including 2 best paper awards at top-tier AI conferences (AAAI, ECAI), 2 Best PhD Thesis Awards (in the UK and in Europe), and the AIJ Prominent Paper Award, for being the author of one of the most influential papers published at the flagship journal in AI. Long currently serves as a board member (2018-2024) of the IFAAMAS Directory Board, the main international governing body of the International Federation for Autonomous Agents and Multiagent Systems, a major sub-field of the AI community. He is also the local chair of the AAMAS 2021 and AAMAS 2023 conference, the flagship international conference of the multi-agent systems community.



Phi Anh Phan is an Associate Professor at the Nuffield Department of Clinical Neurosciences (NDCN), University of Oxford. His research background is biomedical engineering. He holds a BE in Mechatronics and a PhD in Artificial Intelligence and Control System. His interests include medical devices, robotics, and engineering systems that require integration of hardware, software and modelling. Dr. Phi Anh is currently developing a medical device technology, called InspiWave, to non-invasively monitor lung function and pulmonary blood flow, and am working towards spinning out the technology from the University. As part of this effort, they have been selected finalist twice in the OneStart life-science business plan competition - one of the largest of its kind. He is also an Enterprise Fellow of the Royal Academy of Engineering. Before joining the NDCN, he worked on the development of 2 respiratory medical devices and researched in self-adaptive AI control algorithms for robots, in Australia. He is interested in consultancy, drafting new patents, spinouts, and participating in new ventures.



Hoa Le Minh is an Associate Professor (Reader) in Optical Communications, and currently the Director of Education for Department of Mathematics, Physics and Electrical Engineering, contributed to University CONCORDAT (2012-2014) and WorkStream-3 (2020) working groups. Prior to joining Northumbria University in 2010, he was a Research Fellow at University of Oxford (UK), a R&D Researcher at Siemens AG (Munich, Germany), and a Lecturer at Ho Chi Minh City University of Technology (Vietnam). He is interested in research related to photonics, optical wireless communications, signal processing, Smartphone technology and intelligent systems with over 200 publications in journals, conferences, and book chapters. He has worked in a number of projects funded by Innovate UK, EPSRC, EU Frameworks and industries, and participated in a number of grant funding panels including EPSRC ICT and other international funding bodies. He volunteers for Associate Editor roles for IET and IEEE journals, chair a number of international conferences, and currently as a Chairman of IEEE Communications Society (ComSoc) UK and Ireland Chapter.

Panellists



Hong Bui is a professor at Birmingham City University. She is passionate for research excellence in management. Her research interests cover a broad spectrum of topics, from Learning Organisation for Innovation and Sustainability, Systems Thinking for Uncertainty and Complexity, to Multidisciplinary Approaches for Organisational Capacity Building, particularly in Higher Education Sector. She has successfully obtained around £300,000 of research grants and research support; £240,000 of enterprise incomes since 2010. She has published in various well-refereed journals, such as the Public Administration Reviewer, Group and Organization Management, Management Learning, and International Journal of Human Resource Management, Asia Pacific Journal of Management, Journal of Managerial Psychology, or Journal of Business Ethics. She was reviewed as a “talented researcher” and “leading scholar” on the top journal of Public Administration Review in 2014. Prof. Hong Bui is committed to lifelong learning and research excellence.



Nguyen T.K. Thanh held a prestigious Royal Society University Research Fellowship (2005-2014) and is a Professor of Nanomaterials, University College London (UCL). She is based at UCL Nanomaterials Laboratory, at The Royal Institution of Great Britain, the oldest independent scientific research body in the world and Biophysics Group, Department of Physics and Astronomy. She is currently Vice Dean for Innovation and Enterprise, Maths & Phys. Sci. Faculty, University College London. Her Research Interest is in Nanomaterials for Biomolecular and Biomedical Sciences and Nanotechnology. She received the Royal Society Rosalind Franklin Award and Lecture 2019 for her achievement in the field of nanomaterials and her impactful project proposal. She is Editor-in-Chief of the Royal Society of Chemistry book Series, Nanoscience and Nanotechnology. She is also a visiting Professor at European Engineering School in Chemistry, Polymers and Materials, University of Strasbourg, France and International University – Vietnam National Universities at Ho Chi Minh City.



An Nguyen is Professor of Journalism and Co-director of the Centre for Science, Health and Data Communication Research at Bournemouth University. He is internationally recognised for a substantial body of research work in a number of areas: digital journalism and its publics (including citizen journalism); news consumption and citizenship; science and health communication in the post-truth era; data and statistics in the media; constructive journalism (esp. solutions journalism); and news and global developments. His work has appeared in, among others, *Journalism*, *Journalism Studies*, *Journalism Practice*, *Digital Journalism*, *Public Understanding of Science*, *First Monday*, *Media and Communication*, *International Journal of Media and Culture Politics*, *Information Research* and *Journal of Sociology*. A former Vietnamese science journalist and Australian-educated scholar, Prof An Nguyen has taught in five British and Australian universities. Prior to BU, he headed journalism at University of Sussex. Before Sussex, he lectured at University of Stirling, where he co-founded and directed its successful Vietnam-based MSc in Media Management. He serves as Editor of *Anthem Studies in Emerging Media and Society Book Series* and on the Editorial Boards of five journals (*Journalism Education*, *Journal of Applied Journalism & Media Studies*, *Media and Communication*, *Journal of Southeast Asian Media Studies*, and *Representology: The Journal of Media and Diversity*) and two international book series.



Viet Anh Dang is a Professor of Finance at Alliance Manchester Business School. He is also an editor of the *Journal of Business Finance and Accounting (ABS3*)*, an internationally recognized outlet for research in accounting, corporate finance, and governance. His main research interests are empirical issues in corporate finance. Viet joined AMBS after successfully completing a PhD in Financial Economics at Leeds University Business School; his PhD thesis was awarded the Best PhD Paper Award at the Financial Management Association (FMA) European Conference. His recent studies have been nominated various Best Paper Awards at the FMA Annual Meetings (Semi-finalist) and European Conference (Finalist), as well as the European Financial Management Association (EFMA) Conference. Viet's research was funded by the UK's Economic and Social Research Council (ESRC) and has appeared in world-leading and reputable finance journals (ABS4*/ABS4/ABS3*), such as the *Review of Financial Studies*, *Journal of Corporate Finance*, *Journal of Banking and Finance*, *Journal of Financial Markets*, and *Journal of Empirical Finance*. Viet is a member of the American Finance Association (AFA), FMA, Society for Financial Studies (SFS), European Finance Association (EFA), and EFMA. He was a founding member and former President of the Vietnam Finance Association International (VFAI).

VIS Hosts



Huan X. Nguyen (Chair of VIS) is a Professor of Digital Communication Engineering, Director of the London Digital Twin Research Centre (LDTRC) (<https://dt.mdx.ac.uk/>) and Head of the 5G/6G & IoT Research Group at Middlesex University London (U.K.). He received his Ph.D. from the University of New South Wales, Australia, in 2007. He founded the LDTRC to set up a leading research hub in Digital Twin research in the UK and strengthen the links between academia and industry in digital transformation and innovations. He also leads research activities in 5G/6G systems, internet of things (IoT), and machine learning within his university with focus on industry 4.0 and critical applications (disaster recovery, intelligent transportation, and healthcare). Prof. Nguyen has been the PI of 10+ major funded projects; delivered 20+ invited talks/keynotes worldwide, published 120+ peer-reviewed research papers, mainly in the IEEE journal and conferences, and served as chairs for many international conferences (e.g., ICT'19-21, ICEM2021, IWNPD'17, PIMRC'20, FoNeS-IoT'20, ATC'15). He is a Senior Fellow of the HEA and Senior Member of the IEEE.



Dr Que-Anh Dang (Vice-Chair of VIS) is an inter-disciplinary researcher/Assistant Professor studying higher education and international development at the Centre for Global Learning (GLEA). Her research interests include globalization and doctoral education, SDGs-related international research partnerships, the cultural political economy of higher education, higher education regionalism, soft power and knowledge diplomacy in Asia and Europe. She reads Sociology of Education (MA) at Aarhus University, Denmark, MSc in Development Studies at Copenhagen Business School, and earned a PhD degree in Sociology of Higher Education from Bristol University, UK with a Marie Skłodowska-Curie Research Grant. Her research interests include: Internationalisation of doctoral education, social imaginaries and social mobility; Dynamic spatial, temporal and social interactions between education and societies (with a focus on equity and inclusive development); SDGs-related educational research partnerships and globally-oriented graduates; Cultural political economy of education; Globalisation, regionalism and multi-layered governance in transnational higher education; Knowledge diplomacy, intercultural engagement and power relations.



Dr An Tran (Secretary of VIS) is a higher research scientist at the Time and Frequency Department, National Physical Laboratory, London Teddington. Dr. Tran received his PhD degree from Université Sorbonne Paris Nord, France (2019). His PhD research focused on high-precision molecular spectroscopy using mid-infrared quantum cascade lasers with SI-traceability. Since 2019, he has joined the research group of Prof. Grant Ritchie, University of Oxford as a postdoctoral researcher for the development of ultra-sensitive continuous-wave cavity-enhanced polarimeters for measuring optical rotation of chiral molecules in visible and near-infrared spectral region. His research interests are primarily on the time and frequency metrology, cavity enhanced techniques, and precise molecular spectroscopy.



Dr Dang Bang Nguyen is an Associate Professor in Finance and Director of the MPhil in Finance Programme, University of Cambridge. His research interests includes: Corporate finance; empirical finance; corporate governance. Bang was an intern and working as a Credit and Corporate Banking Analyst at Credit Lyonnais Vietnam in 1996. He was an intern of the Ecole Nationale d'Administration in 1997 and 1998 at the Cabinet of the Préfet des Ardennes (France.) He also gained experience when working for AXA Investment Managers Paris as a graduate summer intern in the Fixed Income Division. Before joining Cambridge Judge Business School in September 2010, Dr. Bang was an assistant professor of finance at the Chinese University of Hong Kong. He graduated from HEC Paris in July 2006 with a PhD degree

in finance. From January 2003 to April 2004, Bang was a visiting scholar in the Finance Department at Stern School of Business, New York University.



Dr Xuan Vinh Doan is a Reader in the Operations Group, Warwick Business School. He is currently a Turing Fellow at the Alan Turing Institute. Before joining Warwick Business School, he was a postdoctoral fellow in the Department of Combinatorics and Optimization at University of Waterloo, Canada. He completed his PhD from the Operations Research Center at MIT, his master study from the MIT-Singapore Alliance programme in Singapore, and his undergraduate study from RMIT University in Australia. His research interests are optimization under uncertainty; data mining; operational research; mathematical modeling; large-scale applications.



Dr Yen Tran is an Associate Professor at the School of Social Sciences, Edinburgh Business School, Heriot-Watt University. Dr. Yen Tran has a strong international academic background. She completed her PhD in Innovation Management and Strategy at Copenhagen Business School (CBS-INO Department of Innovation and Organisational Economics) and Stanford University. She obtained her MSc and MBA education at Ohio State University (Fisher College of Business) and Asian Institute of Technology. She also previously held academic position at Copenhagen Business School (INT) and was a visiting professor at FPT University-Business School- Vietnam (2016-2019). Yen Tran's research is within the areas of Innovation Management, International Strategy and International Entrepreneurship (IE-IB). Her current research is focusing on (1) organisational and innovation capability development in response to technological changes and (2) entrepreneurial mobility (entrepreneurial knowledge and capability development) in emerging markets (MNC spin offs/employee mobility, knowledge repatriation, returnee entrepreneurship and digital internationalisation strategy).



Dr Anh Phan is a Senior Lecturer of Chemical Engineering in the School of Engineering at Newcastle University. Her area of expertise includes: Cold plasma technologies (for chemical and biorefining processes); Advanced thermochemical conversion (pyrolysis, gasification); Combustion; Biofuel processing; Reactor engineering/process intensification; and Plastic waste treatment.



Dr Son Hoang is a Lecturer in the Cyber-Physical Systems Group (a part of School of Electronics and Computer Science). He was awarded a first class honours degree in Computer Engineering from the University of New South Wales (UNSW), Sydney, Australia in 2001. Subsequently, he studied for a PhD (also at UNSW) and was awarded his PhD in 2006 for his thesis on "The Development of a Probabilistic B-Method and a Supporting Toolkit". Dr Son Hoang is interested in Formal System Development, including developing methods, tools and their application to industrial systems. Dr Son Hoang lectures on programming, software engineering and system development. He supervises a number of Undergraduate and MSc projects, and is an Admissions Tutor for the undergraduate Aerospace Electronic Engineering (AEE) degree programme.



Dr Van Huynh has an academic and professional profile with over 16 years of experience working in business and academic environment. After completing her PhD in Economics & Management from IAE Lille (France) in 2010, she worked at Edhec Business School, Lille 1 University and was a Director of Accounting, Control and Audit Master Program at Catholic University of Lille. She has also worked at Societe General bank and Thomson Foundation. Since 2015, she has been a Lecturer in Financial Accounting, University Paris Dauphine – PSL (Campus London) and also a Senior Management Accountant at Mazars UK.



Dr. Le-Nam Tran received the B.S. degree in electrical engineering from Ho Chi Minh City University of Technology, Vietnam, in 2003 and the M.S. and Ph.D. degrees in radio engineering from Kyung Hee University, Korea, in 2006 and 2009, respectively. He is currently a Lecturer/Assistant Professor with the School of Electrical and Electronic Engineering, University College Dublin, Ireland. Prior to this, he was a Lecturer at the Department of Electronic Engineering, Maynooth University, Ireland. From 2010 to 2014, he had held postdoc positions at the Signal Processing Laboratory, ACCESS Linnaeus Centre, KTH Royal Institute of Technology, Stockholm, Sweden (2010-2011), and at Centre for Wireless Communications, University of Oulu, Finland (2011-2014). His research interests are primarily on applications of optimization techniques on wireless communications design. Some recent topics include energy-efficient communications, physical layer security, cloud radio access networks, cell-free massive MIMO, and reconfigurable intelligent surfaces. He has published more than 110 papers in international journals and conference proceedings. Dr. Tran is an Associate Editor of EURASIP Journal on Wireless Communications and Networking. He was the Symposium Co-Chair of Cognitive Computing and Networking Symposium of International Conference on Computing, Networking and Communication (ICNC 2016) and was the Co-Chair of the Workshop on Scalable Massive MIMO Technologies for Beyond 5G at IEEE ICC 2020.