

Griffith Sciences and HoChiMinh University of Technology (HCMUT) jointly supervised PhD initiative

List of potential supervisors Prepared by GSc, International, September 2014

Background:

Griffith University (GU) and Ho Chi Minh City University of Technology, Vietnam (HCMUT), have established a cooperative program for doctoral education. This arrangement will allow suitably qualified students from HCMUT to obtain degrees of Doctor of Philosophy in the areas of Engineering and Information Communication Technology (ICT).

The duration for the study lasts four years where students will undertake a 2-year study of Doctor of Philosophy at HCMUT under a jointly supervised PhD arrangement. HCMUT students would need to seek a GU supervisor as well as a HCMUT supervisor and students must apply for admission to the PhD program at GU as per the normal processes prior to commencing the PhD program at HCMUT. Those students who successfully complete all components of the 2-year study of Doctor of Philosophy at HCMUT, then enrol in the PhD program at GU seeking recognition of prior learning towards their PhD at GU. Provided all requirements of the program are met and upon successful completion, students will be eligible to graduate with a GU degree.

Areas of research as prescribed by Ministry of Education & Training (MOET) Vietnam:

Computer Sciences, Mechanical Engineering, Electrical Engineering, Electronics Engineering, Telecommunications Engineering, Cybernetics and Automatics, Environmental Engineering, Resources and Environmental Management, Hydraulic Engineering, Transportation Engineering, Civil Engineering and Industrial Engineering, Geological Engineering.

Identification of potential supervisors prior to application:

GSc will provide HCMUT with a list of potential supervisors in the 12 identified research areas that HCMUT students may consider for their studies. It should however be noted that this list is not exhaustive and should the research areas of the potential candidates not be in line with the suggested supervisors, they should in the first instance visit GU's Research Hub website - <http://research-hub.griffith.edu.au/> to identify more suitable research experts. In the second instance, GSc will assist with the identification of additional supervisors based on the research topics of the HCMUT students.

List of potential supervisors:

Area of Research	Research Expert	Email	Research expertise area
Computer Sciences	Professor Vladimir Estivill-Castro	v.estivill-castro@griffith.edu.au	RoboCup, Machine Learning, Knowledge Discovery and Data Mining, Pattern Analysis and Machine Intelligence, Privacy in Data Mining, Spatial Databases, Geographical Information Systems, Computational Geometry and Algorithms
	Dr Vallipuram Muthukumarasamy	v.muthu@griffith.edu.au	Information Security, Network Security, Data Communication, Network and Security Management, Advanced Computer Networks, Network and System Administration
	A/Professor Bela Stantic	b.stantic@griffith.edu.au	Big Data, Data mining, Database Management, Spatial and Temporal Databases, Information Systems Management, Bioinformatics
	Dr Rene Hexel	r.hexel@griffith.edu.au	Real-Time Systems, Distributed Systems and Networking, Embedded Systems, Operating Systems, Network Security, Context Aware Systems, Ubiquitous and Pervasive Computing
Mechanical Engineering	Dr Dzung Dao	d.dao@griffith.edu.au	Micro/Nano Machining Technology, Nanostructured Materials (e.g. Silicon Nanowire, CNT, Photonic Crystal): Property and Application, Micro/Nano Electromechanical Systems (MEMS) Technology
	Dr Peter Woodfield	p.woodfield@griffith.edu.au	Experimental and computational heat transfer, Computational fluid dynamics (CFD), Thermophysical and transport property measurement techniques, Jet impingement quench cooling, Inverse heat conduction
	Professor Geoff Tansley	g.tansley@griffith.edu.au	Design, manufacture and testing of medical devices and fluid mechanics of blood flow Design of rotary blood pumps for application as ventricular assist devices (artificial hearts), design of blood pumps for use prior to haemodialysis
Electrical & Electronics Engineering	Professor David Thiel	d.thiel@griffith.edu.au	Smart antennas, Wireless sensor networks Antenna measurements, RFID, Electronics packaging (Circuits in Plastic, RoHS, WEEE compliance), Electromagnetic modelling (Impedance method, inverse problems)
	Professor Ljubo Vlacic	l.vlacic@griffith.edu.au	Control systems, Decision theory, Industrial automation, Mechatronics, Intelligent robotics, Autonomous systems, Computer and communication systems, Knowledge management, Intelligent vehicles and transport systems

Area of Research	Research Expert	Email	Research expertise area
	A/ Professor Steven O'Keefe	s.okeefe@griffith.edu.au	Compact and efficient antenna designs for personal communication devices and wireless networks Multiband antennas for 3G and future technology cellular handsets Wireless technologies such as RFID, industrial monitoring and control and RDS and geophysical electromagnetics such as EM emission from rock fracture
Cybernetics and Automatics	A/ Professor Alan Wee-Chung Liew	a.liew@griffith.edu.au	Bioinformatics, computational biology, computer vision, image processing analysis, machine learning, medical imaging, pattern recognition, data mining
	Professor Abdul Sattar	a.sattar@griffith.edu.au	Knowledge representation and reasoning, constraint satisfaction, intelligent scheduling, rational agents, propositional satisfiability, temporal reasoning, temporal databases, and bioinformatics, rtificial intelligence and image processing, data format, information systems
	Dr Jun Jo	j.jo@griffith.edu.au	Artificial Intelligence and Image Processing, Adaptive Agents and Intelligent Robotics, Neural, Evolutionary and Fuzzy Computation, Pattern Recognition and Data Mining
	Professor Michael Blumenstein	m.blumenstein@griffith.edu.au	Pattern recognition, Automated handwriting recognition, Neural networks and applications, Video analysis and object detection, Image processing, Artificial intelligence
Telecommunications Engineering	Dr Faisal Mohd-Yasin	f.mohd-yasin@griffith.edu.au	Microelectronics and Integrated Circuits, Microelectromechanical Systems (MEMS)
Environmental Engineering	Dr Sunil Herat	s.herat@griffith.edu.au	Solid and hazardous waste management in developing countries, electronic waste (e-waste), 3R (Reduce, Reuse, Recycle), cleaner production in SMEs, community based solid waste management and vermiculture technology
	Professor Bofu Yu	b.yu@griffith.edu.au	Hydrology - Climate variability and change, Storm runoff prediction, Stochastic weather generators, Erosion and sediment transport, Rainfall erosivity
	A/Professor Margaret Greenway	m.greenway@griffith.edu.au	Environmental Microbiology and Ecology, Wetland Systems in Environmental Management, Management of Biological Resources, Aquatic Ecosystems, Ecological Theory and Practice
Resources and Environmental Management	Dr Peter Davey	peter.davey@griffith.edu.au	Environmental Management, Sustainable Development - Improving Partnership Approaches in Developing Countries, Impacts of Climate Change on Human Health and Food Security, Evaluation of Healthy City Planning in Local Government, Links between Public Health and

Area of Research	Research Expert	Email	Research expertise area
			Urban Design, Greening Cities and Ecovillage, Environmental Health, Quarantine and Disease Control, Sustainable Livelihoods, Environmental Education and Training and Internationalisation
	A/Professor Chengrong Chen	c.chen@griffith.edu.au	Soil Biology ,Environmental Management and Rehabilitation ,Nutrition and Physiology ,Environmental Impact Assessment,Soil Chemistry ,Soil Chemistry (excl. Carbon Sequestration Science),Forestry Sciences
	Professor Xihong Xu	zhihong.xu@griffith.edu.au	Soil Biology & chemistry, Nutrition and Physiology Environmental Impact Assessment, Forestry Management and Environment ,Stable isotope and nuclear magnetic resonance techniques, Tree nutrition and forest ecophysiology, Biogeochemical processes of carbon, Forest soils and ecosystem, Global climate change, Biogeochemical cycles of carbon and nutrients Wood quality and chemistry
	Professor Darryl Low Choy	d.lowchoy@griffith.edu.au	Urban and Regional Planning, Land Use and Environmental Planning, Urban and Regional Planning
Hydraulic Engineering	Dr Graham Jenkins	graham.jenkins@griffith.edu.au	Hydraulic characteristics of wetland systems, Hydraulic characteristics ecologically sustainable urban streams Hydrology of urban catchments, Water quality modelling in urban drainage systems, Hydraulics of small hydraulic structures, Computational aspects of hydraulics and hydrology in small catchments
	A/Professor Hong Zhang	Hong.zhang@griffith.edu.au	Coastal/ocean dynamics (circulations, wave dynamics, mixing processes) and the water resource engineering (dynamics of ground water flow, water sensitive urbane design and river sediment transport). She employs a variety of techniques such as analytical, experimental, numerical and artificial neural network methods to obtain the theoretical understanding of her research problems and apply them to engineering practices.
	Dr Amir Etemad-Shahidi	a.etemadshahidi@griffith.edu.au	Fluid mechanics and water engineering - Coastal and Oceanographic Engineering, Environmental Fluid Dynamics, Hydroinformatics
	Dr Nick Cartwright	n.cartwright@griffith.edu.au	Coastal processes, Coastal groundwater dynamics, Storm surges, Hydrology
Transportation Engineering	Dr Xiaobo Qu	x.qu@griffith.edu.au	Traffic and Transport, Transportation Infrastructure - Roundabout Capacity Modelling, Performance Evaluation, and Safety Analysis, Vehicle Crash Surrogate Modelling for Traffic Operations in Freeways, Propagation and Dissipation of Traffic Disturbances on Saturated Freeways, [Analysis of Cyclist Safety at

Area of Research	Research Expert	Email	Research expertise area
			Roundabouts in Queensland, Crash, Traffic Offenders, and Crash Avoidance, Transport, Network Vulnerability Analysis.
	Dr Gary Chai	g.chai@griffith.edu.au	Pavement planning and management, mechanistic pavement design, pavement investigation and evaluation, finite element analysis of concrete pavement, cement stabilization in pavement rehabilitation and soil mechanics of pavement foundation
Civil Engineering and Engineering Management	Dr Erwin Oh	y.oh@griffith.edu.au	Geotechnical engineering and infrastructure engineering - geotechnical issues for road infrastructure, soft clay behaviour and ground improvement techniques, dynamic behaviours of soil, and numerical models in coastal and geotechnical engineering
	A/Professor Rodney Stewart	r.stewart@griffith.edu.au	Innovation in construction - project information management systems, building information models, IT project life cycle management, innovation diffusion, Process improvement - six sigma, TQM, international standards, Modern procurement practices - joint ventures, PPP, BOOT, alliance contracts, technology transfer, Water resource management - water end-use analysis, recycled water strategies, least cost demand management solutions, Smart asset management - decision support systems, fibre optics, Engineering education - project based learning, work integrated learning, international students
	Professor Sherif Mohamed	s.mohamed@griffith.edu.au	Project Management, Risk Analysis and Management, Research Methodology, Safety Management
	Professor Yew-Chaye Loo	y.loo@griffith.edu.au	Concrete Structures, Bridge Engineering, Computational Mechanics, Bridge and Road Pavement Asset Management
	A/Professor Hong Guan	h.guan@griffith.edu.au	Structural engineering and computational mechanics, finite element modelling and failure analysis of concrete structures, application of finite element method in dental implant research, bridge deterioration modelling and structural topology optimisation.
	Dr Jeung-Hwan Doh	j.doh@griffith.edu.au	Structural Design, Advanced Steel Structures, Advanced Studies in Computer Aided Design and Drafting, Advanced Topics in Structural and Geotechnical Engineering. Behaviour of normal and high strength concrete structures, particularly concrete walls, deep beams and concrete slabs.
Engineering Geology	Dr Anand Tularam	a.tularam@griffith.edu.au	Applied Mathematics - to a wide number of areas, Applications to modelling of groundwater flow and

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			pollutant transport , Applications of time series and stochastics to financial risk, Uncertainty and modelling of flow and transport generally, Atmospheric Sciences, Environmental Science and Management
	Dr Ivan Gratchev	i.gratchev@griffith.edu.au	Geotechnical Engineering Practice - Soil Mechanics, Soil Dynamics, Slope failures, Environmental geotechnics, Liquefaction of fine-grained soils, Consolidation of clayey soils