

QMUL SUPERVISOR INTRODUCTION 2024-2025

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Dr Habiba Akter



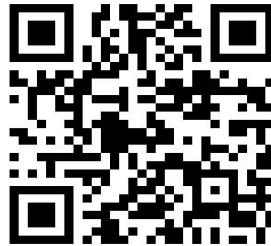
<https://www.qmul.ac.uk/eecs/people/profiles/habiba-akter.html>

Project ID:	QHA
Email:	h.akter@qmul.ac.uk
Application area(s):	Networks and Wireless Data Science and Artificial Intelligence

Past project examples:

- Use of an optimisation tool to help user avoid a busy node in network
- Developing a Simulation Tool to Compare Shortest Path Finding Algorithms
- Developing a To-Do List Using Data from Calendars
- Designing an App to Store Student Data
- Designing an Application for Tracking Books
- Developing an Application Storing Student's Assessment Outcomes
- Design and Develop a Dashboard Application Combining User Data
- Implementation of an Optimising Algorithm to Optimise the Student Engagement in a Large Class
- Training a Neural Network for Highly Accurate Object Detection from Videos

Dr Atm Alam



<https://atmalam.wordpress.com/>

Project ID:	QASA
Email:	a.alam@qmul.ac.uk
Application area(s):	Networks and Wireless IoT Systems

Past project examples:

- UAV Trajectory Design in UAV-NOMA Networks using Active Inference or Reinforcement Learning
- Real-time Audio Event Detection for Home Security
- Active Inference or Reinforcement Learning for Energy Efficient Resource Allocation in UAV-NOMA Networks
- User Pairing in UAV-NOMA Networks using Active Inference or Reinforcement Learning
- Edge Computing Task Offloading using Active Inference (AIn) or Reinforcement Learning (RL)
- Integration of heterogeneous access technologies for home area networks
- Machine learning based automatic modulation classification in the presence of interference
- Identifying Visual Motor Perception Abnormalities in Major Depressive Disorder (MDD) Patients Using Machine Learning Clustering
- Optimizing Video Compression Using Deep Learning Techniques
- Real-time Sign Language Translation from Video using Convolutional Neural Networks (CNNs)

Dr Yasir Alfadhl



<https://www.eecs.qmul.ac.uk/~yasir/>

Project ID:	QYA
Email:	yasir.alfadhl@qmul.ac.uk
Application area(s):	Networks and Wireless
Past project examples: <ul style="list-style-type: none"> • Tasmota Firmware Integration and Customisation for Advanced Home Automation with MQTT Integration • AWS Integration with MQTT for a Growing IoT Ecosystem • Raspberry Pi-based MQTT Hub for Local IoT Control • Mobile App Development for MQTT-based IoT Control • Home Assistant-based Local Hub for Tasmota Devices 	

Dr Fatma Benkhelifa



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Project ID:	QFB
Email:	f.benhelifa@qmul.ac.uk
Application area(s):	Networks and Wireless IoT Systems

Past project examples:

- Deep Reinforcement Learning for Integrated Space-Air-Ground Wireless Powered LoRa Networks
- Deep Reinforcement Learning for Freshness of Information in Internet of Things Networks
- Exploiting SWIPT in Integrated Sensing and Communication Systems
- Physical Layer Security for LoRa Networks
- Design of Hybrid Solar-Radio Frequency Energy Harvester Circuit

Dr Marie-Luce Bourguet



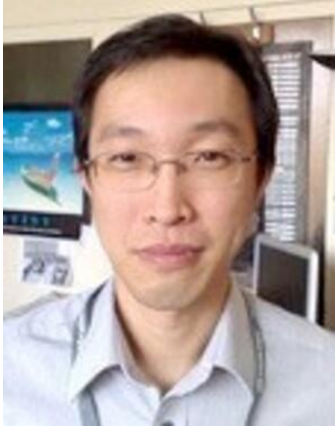
<https://www.eecs.qmul.ac.uk/~mlb/>

Project ID:	QMLB
Email:	marie-luce.bourguet@qmul.ac.uk
Application area(s):	Multimedia and Vision Software development

Past project examples:

- Speaker behaviour capture, analysis, and classification from video data
- Collaborative learning on the metaverse
- Generation and evaluation of non-verbal behaviour for embodied agents
- Sentiment analysis from text and speech
- Using eye tracking and visual attention maps for intelligent video compression
- Analysing visual attention distribution during learning using eye tracking technology
- Evaluation of visual aesthetics using eye tracking and visual attention patterns
- Learner profiling and grade prediction using learning analytics
- Automatic classification of written assessments based on the Bloom taxonomy
- Immersive learning of audio signals using Virtual Reality

Prof Michael Chai



<https://www.eecs.qmul.ac.uk/~michaelc/>

Project ID:

QMC

Email:

michael.chai@qmul.ac.uk

Application area(s):

Networks and Wireless
IoT Systems

Past project examples:

- AI-Enhanced Natural Language Processing (NLP) Chatbot
- Activity Tracking in Sports Analytics
- AI-Based Recommendation System for E-commerce
- AI-Powered Financial Fraud Detection
- AI-Based Early Warning System for Student Success
- Automated Coursework Grading System
- Electric Vehicle Charging Recommendation System
- IoT-Based Environmental Monitoring System
- Traffic Noise Monitoring System
- Smart Digital Photo Frame

Dr Xianhui Che



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Project ID:	QCC
Email:	x.che@qmul.ac.uk
Application area(s):	Multimedia and Vision IoT Systems

Past project examples:

- Traffic Study of a Leading Internet Media Application in China
- Children's 3D Film Production Using OpenGL
- Virtual Reality of in-House Tour Using Google Cardboard Type of VR Glasses
- The Creation of 3D Graphic Assets in Blender for Unity
- 3D Adventure Game Development Using Unity
- Immersed VR Experience in a Virtual World
- Animated Film of BUPT Campus Using Maya
- Interactive 3D Game Using OpenGL
- 3D Virtual Tour of BUPT Campus Using OpenGL
- 3D Modelling of Pixel Art for a Well-known Heroic Figure Using OpenGL

Prof Xiaodong Chen



<https://www.qmul.ac.uk/eecs/people/profiles/chenxiaodong.html>

Project ID:	QXC
Email:	xiaodong.chen@qmul.ac.uk
Application area(s):	Networks and Wireless Data Science and Artificial Intelligence

Past project examples:

- Diagnosing Alzheimer's disease using deep learning network based on EEG signals
- Deep learning detection of anxiety disorders using MRI images
- Epilepsy detection using deep learning network based on EEG signals
- Attention-deficit hyperactivity disorder identification using deep learning network based on EEG signals
- Automatic Diagnosis of Schizophrenia in EEG Signals Using Deep Learning Network
- CNN Prediction From Mild Cognitive Impairment to Alzheimer's Disease Based on MRI Images
- Deep learning detection of depression using EEG data fusion
- CNN diagnosis of temporal lobe epilepsy Based on MRI Images
- Automated Diagnosis of Schizophrenia Using Deep Learning Network based on MRI
- Deep learning detection of depression using MRI images

Dr Manolis Chiou



<https://www.qmul.ac.uk/eecs/people/profiles/manolischiou.html>

Project ID:	QEC
Email:	m.chiou@qmul.ac.uk
Application area(s):	Data Science and Artificial Intelligence Software development

Past project examples:

- VFH+ based shared control for remotely operated mobile robots
- A Bayesian-Based Approach to Human Operator Intent Recognition in Remote Mobile Robot Navigation
- Human operator cognitive availability aware Mixed-Initiative control
- Disaster response robotics, needs and requirements
- Radiation detection and characterisation using mobile robots
- Real-Time Estimation of Human Operator Workload Using Behavioural Entropy
- A Hierarchical Variable Autonomy Mixed-Initiative Framework for Human-Robot Teaming in Mobile Robotics
- A Supervised Machine Learning Approach to Operator Intent Recognition for Teleoperated Mobile Robot Navigation

Dr Richard Clegg



<https://www.richardclegg.org/>

Project ID:

QRGC

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r.clegg@qmul.ac.uk

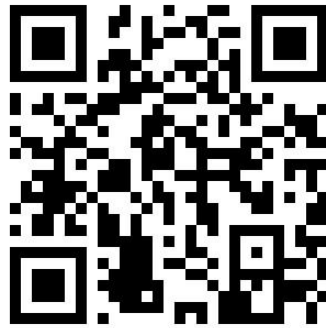
Application area(s):

Networks and Wireless
Data Science and Artificial Intelligence

Past project examples:

- Using AI and ML to investigate "stablecoins" in cryptocurrency
- Investigating stop start video traffic on the Internet
- Predicting performance of Non-Fungible Tokens (NFTs) using AI
- Investigating the evolution of AI neural networks as complex networks
- Predicting trade using AI
- Creating artificial models of networks
- Fairness in global trade -- looking at changes in the global trade network
- Studying communities in the social network reddit
- Identifying TCP from network traces
- Investigating usage of the QUIC networking protocol in China

Dr Maged Elkishlan



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Project ID:

QME

Email:

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Application area(s):

Networks and Wireless

Past project examples:

- Wireless Energy Harvesting for Two-Way Cooperative Systems
- Wireless Energy Harvesting for NOMA
- Wireless Energy Harvesting for Cognitive Radio
- Simultaneous Wireless Information and Power Transfer for Multiuser Cognitive Radio
- The interaction between Cognitive Radio and NOMA

Dr Paula Fonseca



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Project ID:	QPF
Email:	paula.fonseca@qmul.ac.uk
Application area(s):	Software development Data Science and Artificial Intelligence

Past project examples:

- Visualising simple programs with a flowchart generator
- Image to cross-stitch pattern conversion system
- Using NFC technology to improve restaurant service efficiency
- A smart phone app to help improve a department store's customer experience
- Helping hard-of-hearing theatre goers
- Smart phone app to help locate shopping center facilities
- Matching users and tutoring activity providers with an online system
- Generator and solver tool for simple maze games
- Smart phone app for museum visitors using Bluetooth beacons • A Scrabble smart phone app

Dr Gokop Goteng



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Project ID:	QGG
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Application area(s):	IoT Systems Software development

Past project examples:

- Smart City Surveillance Security System using Generative AI
- Developing Data Lakes for Business Intelligence Analytics
- Using Cryptocurrency to Stabilise Rising Inflation in Global Economy
- Creating Global Contact Centre for Digital Nomads
- Implementing Generative AI on Quantum Computing
- A Computational Comparison of Implementing ChatGPT on GPU Computing and Quantum Computing
- Enhancing Teaching and Learning Cloud Computing through Gamification
- Developing a Cloud-based Geolocation Database to Protect Primary Users in TV Whitespace
- Digital Wallet for Global Transactions
- IoT and Cloud Resource Management System

Dr Muhammad Salman Haleem



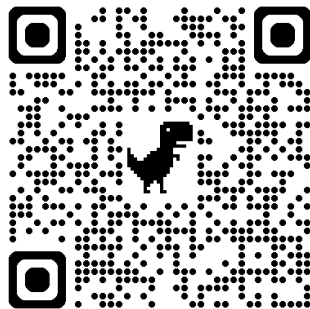
<https://www.qmul.ac.uk/eecs/people/profiles/muhammadsalmanhaleem-.html>

Project ID:	QSH
Email:	m.haleem@qmul.ac.uk
Application area(s):	Data Science and Artificial Intelligence Software Development

Past project examples:

- Chatbot for mental stress and wellbeing support for students
- Machine learning driven mental health analysis among social media users
- Real-time assessment tool for extracting and displaying morphological properties of the ECG
- Real-time blood pressure detection via rPPG and Deep Learning approach
- Real-time surgical tool detection for effective hospital management
- A multimodal approach for analysing gait in elderly subjects via clinical and wearable data
- A mobile app development for real-time self-assessment frailty score of elderly subjects

Dr Riasat Islam



<https://www.qmul.ac.uk/eecs/people/profiles/islamriasat.html>

Project ID:

QRI

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riasat.islam@qmul.ac.uk

Application area(s):

Data Science and Artificial Intelligence
Software Development

Past project examples:

N/A

Dr Mona Jaber



<https://www.qmul.ac.uk/eecs/people/profiles/jabermona.html>

Project ID:	QMJ
Email:	m.jaber@qmul.ac.uk
Application area(s):	IoT Systems Networks and Wireless

Past project examples:

- Automated Basketball Referee System Using Multimodal Data Fusion
 - IoT-based room occupancy detection for smart buildings
- Traffic volume forecast based on the historical traffic volume and other features in neighboring locations
- Optimisation of bike distribution based on the analysis of data from bike-sharing systems
- Where did this music originate from?
- Can you detect people's emotions from the music they listen to?
- Big data analytics: a case of IoT data for air quality
- Big data analytics: a case of home appliances energy consumption
- Can accelerometer data inform on how well a person conducts an activity: A case of weight lifting
- Who will pass, drop out, or fail in higher education?

Dr James Kelly



<https://www.eecs.qmul.ac.uk/~jkelly/>

Project ID:	QJK
Email:	j.kelly@qmul.ac.uk
Application area(s):	Networks and Wireless

Past project examples:

- Control system for reconfiguring straight liquid wiring within advanced communication system
- Millimetre Wave Single-Pole Multi-Throw for 5G/6G applications
- Control system for reconfiguring a liquid switch within an advanced communication system
- Control system for reconfiguring a liquid via connection within an advanced communication system
- Control system to compensate for expansion of liquid wires in advanced communication systems
- Develop a system to control liquid wiring, with the aid of oil, within an advanced communication system
- Identify new materials that could be used in next generation wireless networks
- Develop a “Self-adaptive” antenna, for future wireless devices, that can automatically maintain constant performance when bent and/or stretched.
- Design, compare, and contrast the performance of phase shifters
- Millimetre wave liquid metal phase shifter for 5G/6G applications.

Dr Farha Lakhani



<https://www.qmul.ac.uk/eecs/people/profiles/farhalakhani.html>

Project ID:	QFL
Email:	f.lakhani@qmul.ac.uk
Application area(s):	Software Development IoT Systems

Past project examples:

- Design and development of Air Quality Monitoring tool using Arduino board
- Data Visualization tool
- Designing a career counselling chatbot
- Development of a software based Computer Architecture
- A web application for managing an online academic Conference

Dr Ethan Lau



Project ID:	QEL
Email:	e.lau@qmul.ac.uk
Application area(s):	IoT Systems Data Science and Artificial Intelligence
Past project examples: <ul style="list-style-type: none"> • A Flexible-Intelligent Home Energy Management with Renewable Energy using Deep Learning Model • An Optimal Planning of Waste Collection and Disposal in an Integrated Sustainable Supply Chain Network • Using Fuzzy Logic and Reasoning to Evaluate and Quantify Students' Academic Performance. • Crime Predictions for Crime Deterrence using Deep Learning • Arbitrating Energy Users and Battery Storage Systems in Residential using Markov-Chain Modelling 	

Dr Chao Liu



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Project ID:	QCL
Email:	c.liu@qmul.ac.uk
Application area(s):	Data Science and Artificial Intelligence IoT Systems

Past project examples:

- NFT Marketplace Analytics: Predicting Asset Value Using Machine Learning
- EcoChain: Plastic Credit Issuance on Blockchain
- Twitter Sentiment Analysis of Dogecoin Discourse
- Portfolio Optimization in the Cryptocurrency Landscape
- Evaluating the Impact of ESG on Corporate Performance
- Decentralized Exchange (DEX) Dynamics: Mitigating Impermanent Loss
- Beyond TVL: Rethinking Prosperity Metrics in De-Fi
- Decentralized Finance (DeFi) Nexus: Synthesizing Decentralized Borrowing with P2P Lending
- DeID: Building the Future with Decentralized Identity Systems
- Shadow Tokens: Quantitative Analysis of Money Laundering in the NFT Landscape

Dr Jonathan Loo



https://www.researchgate.net/profile/Jonathan_Loo

Project ID:	QJL
Email:	j.loo@qmul.ac.uk
Application area(s):	IoT Systems Networks and Wireless

Past project examples:

- Development of a Small-scale Modular Solar Panel Grid, Storage and Monitoring System
- Multimodal Large Models for Cross-Modal Remote Sensing Image Retrieval
- Prototyping Commercial-grade Home Automation System using ESP32 MCU, Tasmota Firmware and Home Assistant
- LSTM-Autoencoder with Dynamic Threshold for Robotic Arm Behaviour Anomaly Detection
- End-to-End Vectorized Solution for Compact HD-Map Construction for Autonomous Driving
- Motion Planning for Autonomous Driving based on NuPlan Simulation Platform
- 3D Point Cloud Object Detection for Autonomous Driving on Apollo Platform
- Multi-agent Motion Prediction in Autonomous Driving Scenarios
- 3D Occupancy Prediction based on View Transformation for Autonomous Driving
- Multi-modal Autonomous Grasping of Multi-Finger Robotic Hands

Dr Ling Ma



<https://www.eecs.qmul.ac.uk/~lingm/>

Project ID:

QLM

Email:

ling.ma@qmul.ac.uk

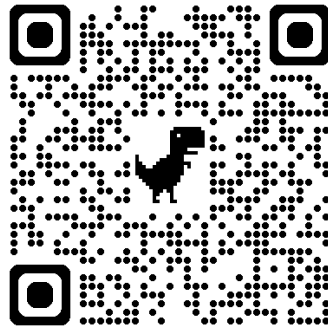
Application area(s):

Software development
Data Science and Artificial Intelligence

Past project examples:

- Data-driven retail pricing strategy guidance application
- An application for legal contract generation
- Legal tech service for courts judgements
- An analytic tool for legal risk assessment
- A legal advice platform
- Academic integrity management system
- A case law study application
- Use legal tech to redesign legal information
- Legal contract management system
- A legal contract interpretation tool for small businesses

Dr Mannan Muhammad



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Project ID:

QMM

Email:

mannan.muhammad@qmul.ac.uk

Application area(s):

Multimedia and Vision
Data Science and Artificial Intelligence

Past project examples:

N/A

Dr Changjae Oh



<https://www.eecs.qmul.ac.uk/~coh/>

Project ID:

QCO

Email:

c.oh@qmul.ac.uk

Application area(s):

Multimedia and Vision
Data Science and Artificial Intelligence

Past project examples:

- Deep learning based 3D hand rendering
- Deep Learning-Based Autonomous Racing System
- Deep learning based 3D human body reconstruction
- Vision-based Action Recognition for Sports Data Analysis
- TikTok Editor: vision-language models based style manipulation
- Occlusion-aware 3D object reconstruction from RGB videos
- Deep learning based image colorization
- Hiding Your Messages from Machines: Adversarial Attacks on VisionLanguage Models
- Vision-Language Prior Based Image Enhancement
- 6D object pose estimation by synthetic-to-realistic object rendering

Dr Nickos Paltalidis



<https://www.qmul.ac.uk/eecs/people/profiles/paltalidisnickos.html>

Project ID:	QNP
Email:	n.paltalidis@qmul.ac.uk
Application area(s):	Software development

Past project examples:

- A Business to Consumers (B2C) mobile app for a small-medium Chinese company
- A web app for project planning and collaboration on group assignments
- A Customer Relationship Management online system for a medium-large company
- A Business to Consumer (B2C) exchange hub for small-medium companies
- A smartphone application for recommendations among travellers
- An analytical dashboard software for Customer Relationship Management
- A software tool for evaluating the strengths, weaknesses, skills, abilities, and experiences of students
- A smartphone application for student engagement
- A smartphone application for student life
- A web app for easy marking and fast feedback of assignments

Dr Stefan Poslad



<https://iot.eecs.qmul.ac.uk/people/academic/stefan-poslad/>

Project ID:	QSP
Email:	stefan.poslad@qmul.ac.uk
Application area(s):	Software development Data Science and Artificial Intelligence

Past project examples:

- Multi-floor Indoor Localization Based on Wi-Fi Fingerprinting
- Use of a Low-cost Artificial Nose to Classify Food and Drink and/or Study Its Deterioration
- Home environmental noise detection system
- A Real-Time Sun Tracking System for Solar Panels
- Development of a Solar Lighting System for Areas with Poor Lighting
- Analysing the impact of physical environment changes on human daily activities at a community level
- A mobile app to collect and analyse cycle journey data
- Use of Pedestrian Dead Reckoning (PDR) for Simultaneous Localization and Mapping (SLAM) of Enclosed Spaces
- Use of Low-cost LiDAR to Detect Moving Cycles, Vehicles and/or People

Dr Hasan Sagor



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Project ID:	QHS
Email:	m.h.sagor@qmul.ac.uk
Application area(s):	Networks and Wireless

Past project examples:

- Design of a Dual Band Antenna for Wrist-worn Wireless Communication Devices
- Design of a Series-Fed Microstrip Antenna Array with Parasitic Patches for mmWave Applications
- Design and Analysis of Printed Yagi Antenna for Wireless Communications
- Compact Directional Antenna Design for 77 GHz Automotive Radar Applications
- Design of a Low-SAR Antenna for On-Body Communications Devices
- Design of a Superwideband Antenna for Wireless Applications including Single/Dual Notched Band Characteristics
- Reconfigurable Antenna using Microwave Switching Components for Wireless Applications
- Printed Conformal Antenna on Low-cost Photo Paper Substrate for Curved Wireless Devices
- Comparative Analysis of Antenna Performance using Defected Ground Structures of Different Shapes
- Design of Compact Low-SAR Antenna for Ingestible Electronics

Dr Mahesha Samaratunga



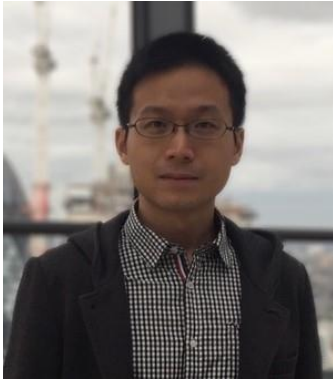
<https://www.qmul.ac.uk/eecs/people/profiles/samaratungamahesha.html>

Project ID:	QMS
Email:	m.samaratunga@qmul.ac.uk
Application area(s):	Software Development Data Science and Artificial Intelligence

Past project examples:

- Designing mindfulness App for students to improve their wellness, relaxation and work life balance
- 'Let's car share' designing a carpooling app for children and parents travelling to school
- Developing a Digital Business Inventory Management System for small business owners in China
- 'sharing is caring' Creating a Online Book Sharing Platform for book lovers and readers
- A desk top application that automates online trading on the foreign exchange market for the average trader

Dr Chao Shu



<https://www.qmul.ac.uk/eecs/people/profiles/dr-chao-shu.html>

Project ID:	QCS
Email:	chao.shu@qmul.ac.uk
Application area(s):	Networks and Wireless Data Science and Artificial Intelligence

Past project examples:

- Intelligent Trading based on Deep Reinforcement Learning with An Ensemble Strategy
- Build a Trading Bot with Machine Learning
- ResearchGPT - AI-Powered Literature Reviews based on Large Language Models
- Design and Development of a Research Literature Analysis Tool with Machine Learning
- Student Module Performance Forecasting using Statistical Machine Learning

Dr Yan Sun (Cindy)



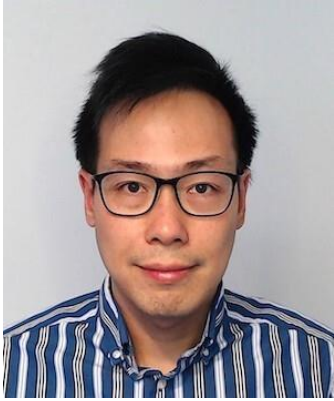
<https://www.qmul.ac.uk/eecs/people/profiles/sunyancindy.html>

Project ID:	QYS
Email:	yan.sun@qmul.ac.uk
Application area(s):	Networks and Wireless Data Science and Artificial Intelligence

Past project examples:

- Study of the correspondence between human neurons and facial features
- Chinese mortise and tenon assembling Instruction auto generator tool for motorcycle (2 or 3 wheels) series
- Chinese mortise and tenon assembling Instruction auto generator tool for soldier series
- Chinese mortise and tenon assembling Instruction auto generator tool for car (4-wheels) series
- Chinese mortise and tenon assembling Instruction auto generator tool for roof of ancient chinese building series

Dr Matthew Tang



<https://www.eecs.qmul.ac.uk/~mtang/>

Project ID:

QMT

Email:

matthew.tang@qmul.ac.uk

Application area(s):

Software development
IoT Systems

Past project examples:

- Floating Point Extension for Qtrvsim - an Educational RISC-V Simulator
- Financial Products Recommendation App
- Voice User Interface for Moodle
- Music Theory Companion App
- Safe Pedestrian Crossing System
- Automatic Plastic Recycling Station
- Smart Recognition App for Plastic Recycling

Mr Andy Watson



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Project ID:	QARW
Email:	andy.watson@qmul.ac.uk
Application area(s):	Multimedia and Vision Software development

Past project examples:

- Integrated System for Musician's Creative Guidance and Prediction using Decision Trees
- Application of Wavelet Transforms in identifying abnormal human heart function
- Real-Time Speech Translation Application
- Real-time Text-independent Speaker Recognition System
- Interactive teaching aid to demonstrate Wavelet Transforms by Multiresolution Analysis
- Interactive teaching aid to demonstrate music in both musical notation and time-frequency distribution
- Extraction of musical phrases
- Simulation of the logistics of a Container Base
- Modelling of vehicles "controlled-by-wire"
- Simulation of an aircraft engine's control system

Dr Vindya Wijeratne



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Project ID:

QVW

Email:

vindya.wijeratne@qmul.ac.uk

Application area(s):

Networks and Wireless
Software development

Past project examples:

- JP-JEI Visa Processing System
- Prototype Car Park Management System
- JP-JEI Student Feedback System
- JP-JEI Teaching Observation System
- Interactive Technical E-book Builder
- BUPT Social Network App
- BUPT Campus 3D Interactive Maps
- Children's Reading App
- Team Carpool App
- Attendance Monitoring with Face Recognition

Dr Alan Wong



<https://www.southampton.ac.uk/engineering/about/staff/ahkw105.page>

Project ID:	QAW
Email:	alan.wong@qmul.ac.uk
Application area(s):	Software development IoT Systems

Past project examples:

- Smartphone app for visualising local air quality data in our cities.
- Smartphone travel app designed with women in mind.
- Smartphone app for creating and discovering walking routes.
- Application for legitimately cloning a secure network-enabled device, such as car fob-keys.
- System for tracking and visualising bicycle movements.
- Travel app for older people and those with impairments.
- Tool for determining when a business user is being productive.
- Air pollution estimator based on local traffic volumes.
- To what extent do individual car journeys contribute to global climate change?
- Retail footfall sensing system.

Dr Na Yao



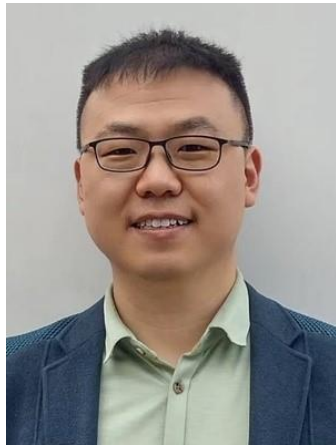
<https://www.qmul.ac.uk/eecs/people/profiles/yaona.html>

Project ID:	QNY
Email:	na.yao@qmul.ac.uk
Application area(s):	Software development Data Science and Artificial Intelligence

Past project examples:

- Android galaxy shooting game
- Android tile-matching game
- Online teamworking tool for JP students
- Online pictionary game
- Web app for exam results visualisation and analysis
- Web app for exam paper generation
- Android Chinese words game app
- Online grocery price comparison app
- Android endless survival game
- Android Sudoku games app

Dr Jin Zhang



<https://www.qmul.ac.uk/eecs/people/profiles/zhangjin.html>

Project ID:

QJZ

Email:

jin.zhang@qmul.ac.uk

Application area(s):

Networks and Wireless
IoT Systems

Past project examples:

- Terahertz (THz) travelling wave tube for next generation wireless communications
- Millimetre-wave spatial harmonic magnetron working at π -mode
- Wideband millimetre-wave Backward Wave Oscillator
- High-gain microwave patch antenna as transmitting antenna for wireless power transfer
- Microwave patch antenna as receiving antenna for wireless power transfer

Dr Qianni Zhang



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QQZ

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Application area(s):

Multimedia and Vision
Software development

Past project examples:

- Smartphone application for lego minifigure classification based on deep learning
- AI system for soft palate segmentation in speech MRI images
- Smartphone application for food image classification based on deep learning
- Smartphone application for logo classification based on deep learning
- Pokemon recognition based on deep learning
- An AI assisted system for skin lesion image classification
- An AI system for liver cancer segmentation in histopathology images •
An AI system for COVID-19 classification in Chest X-rays
- Vessel inner and outer border detection in intravascular ultrasound images based on deep learning
- Semi-supervised Tooth Segmentation on Panoramic X-ray Image

Dr Yixuan Zou



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Application area(s):	Data Science and Artificial Intelligence Networks and Wireless

Past project examples:

- Enhancing Facial Recognition Using Sketch and Synthesized Face Photos
- A Model-Driven Deep Learning Framework for Sparse MIMO Signal Detection
- Image Attribute Editing using Generative Neural Network
- Sketch to Photo Conversion for Face Image Generation
- Learning to Predict: Cross Domain Meta Learning for Fast Human Motion Prediction
- Distributed Deep Reinforcement Learning for Age of Information Minimization
- Meta Q-Learning for Adaptive UAV Trajectory Design
- Enhancing UAV-aided Communication via Multi-Agent Deep Reinforcement Learning
- Adaptive UAV Path Planning using Deep Reinforcement Learning
- Model-based Deep Signal Detection under Imperfect CSI