INTRODUCING MIDDLESEX UNIVERSITY

Prof Mehmet Karamanoglu
Head of Department
Design Engineering and Mathematics

M.Karamanoglu@mdx.ac.uk

@ProfMem
@MdxDEM

Our Shape and Size

- 16,000 UK students, 25,000 globally, serving students from 140+ countries

- Campuses in London, Dubai and Mauritius

- Four Faculties
  - Arts and Creative Industries
  - Business and Law
  - Health, Social Care and Education
  - Science and Technology

Teaching Excellence Framework – TEF

Middlesex University London

TEF 2023 Silver

We're proud that our undergraduate student experience and student outcomes have been rated as **typically very high quality.**

Rating awarded in 2023, for four years.

www.mdx.ac.uk

Building on Our Success

Top 5 in the UK in the Young University Rankings **(2023)**

91st in the World

THE Impact

TOP 200

TOP 50 for

— SDG5 Gender Equality **(12th)**
— SDG10 Reduced Inequalities **(36th)**
— SDG16 Peace, Justice and Strong Institutions **(48th)**

THE AWARDS 2022

BEST International university in Dubai

Outstanding new West Stand facilities in Hendon

REF 2021

Increase in global impact of our **world-leading** research

Our Business and Management research is **Number 1 in the UK** for world leading **Societal Impact**

UA University Alliance

GRADUATE OUTCOMES

74% highly skilled employment

93% overall employment

TOP 50 university for business leaders and entrepreneurs in UK

Hitachi Capital

HITACHI Capital Finance 2020

WHATUNI? STUDENT CHOICE Awards 2022
WINNER OUTREACH AND WIDENING PARTICIPATION

Collaborative Award for Teaching Excellence 2022

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University Wide Research Areas

Art and design	Biomedicine, bioscience and biotechnology	Computing, systems and electronic engineering	Criminal justice and criminology
Dance	Education	Enterprise, Entrepreneurship and Local Growth	Environmental science and environmental studies
Behavioural and Experimental Economics	Finance and Corporate Governance	Health	Human, social and economic geography
Human systems	International Business Group	Law	Media
Music	Nursing and midwifery	Organisation Studies	Professional practice
Psychology	Social policy and social work	Software engineering and algorithms	Sport
Theatre arts	Tourism and Place Branding		

https://www.mdx.ac.uk/our-research/research-areas

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Research Groups

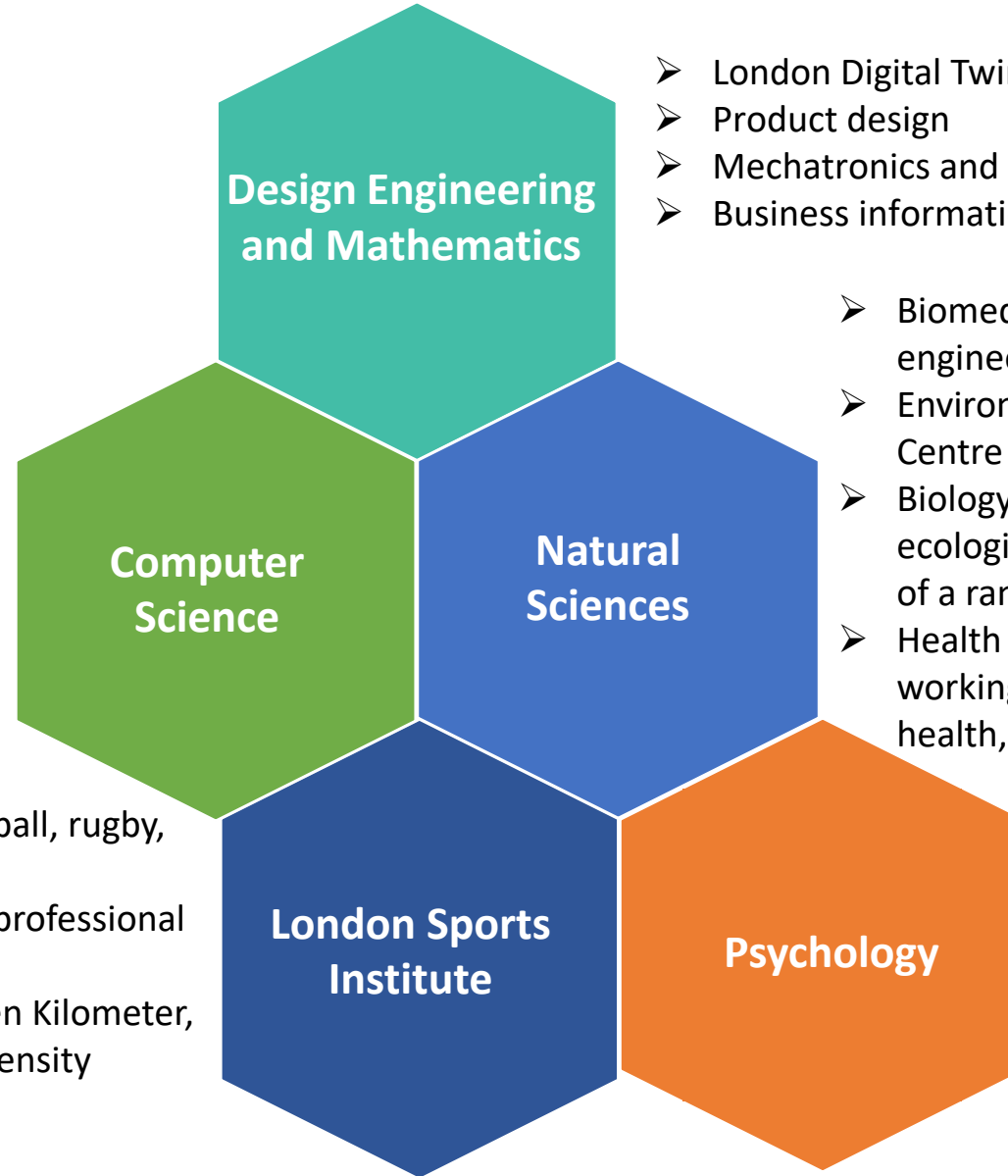https://www.mdx.ac.uk/our-research/research-groups

Alternative Organisations and Transformative Practices	Intelligent Environments group
Psychology, Health and Wellbeing Research Group	Language and Communication Research Cluster
Applied Sport and Performance Psychology	Law and Politics research
Architecture, Design and Urban Cultures cluster	Mathematics group
Art Practice as Investigation research cluster	Molecular Biology group
Artificial Intelligence group	Museum of Domestic Design and Architecture
Aspects of Law and Ethics Related to Technology group	Performance Analysis at the London Sport Institute
Biomechanics at London Sport Institute group	Physiology at the London Sport Institute
Biophysics and Bioengineering group	Prisons Research Group
Business Ethics, Accountability and Governance research cluster	Promotional Cultures Research Cluster
Choreography cluster	Qualitative and Mixed Methods Research group
CREATE/Feminisms research cluster	Rehabilitation Exercise Science at the London Sport Institute
Cognitive Psychology and Neuroscience Research Group	Reproductive Biology group
Community and Clinical Psychology Research Group	Science and Technology Communication Research Cluster
Complementary Health group	Science Fiction
Computational Modelling and Simulation group	SensoLab group
Consumer Research for Well-being cluster	Socially Engaged Practices research cluster
Decision Making for Policy (DEMAP)	Sports Coaching and Education at the London Sport Institute
Developmental Psychology Research Group	Strategic Marketing and Branding Research Group
Diagnostic Biomarkers Research Group	Strength and Conditioning at the London Sport Institute
Diasporic and Transcultural Practices	Sustainable Development Research Cluster
Directing and Dramaturgy	Transnational Labour and Social Movements Research Cluster
Electronic and Digital Arts research cluster	UK Visual Analytics Consortium
Femgensex	Visual Culture and Curating research cluster
Film and TV Research Group	Whistleblowing Research Unit
Forensic Psychology Research Group	Y-Comm global research group
Foundations of Computing group	Centre for Social and Criminological Research
GIRDA Game Play for Inspiring Digital Adoption	Transition to Parenthood in Small and Medium Sized Enterprises
Gender and Diversity Cluster	Migration, Politics and Society research cluster
Gender, Justice and Security Hub	
Informing Professional Interventions group	Visual and Creative Methods Research Group

SCIENCE and TECHNOGOLY FACULTY?

- Applied Software Engineering
- Artificial Intelligence
- Aspects of Law and Ethics Related to Technology
- Computational Modelling and Simulation
- Computer Science Networking Group (CSNET)
- Foundations of Computing
- Intelligent Environments
- Interaction Design Centre

Design Engineering and Mathematics

- London Digital Twins Research Centre
- Product design
- Mechatronics and robots
- Business information Management and urban environments

Computer Science

Natural Sciences

- Biomedical: Cancer research and bio engineering
- Environmental: Urban Pollution Research Centre and Flood Hazard Research Centre
- Biology-Evolution/genetics of organisms, ecological diversity and the molecular biology of a range of organisms
- Health and Risk Management (PhaRM): working on epidemiology, environmental health, housing, population ageing

- Performance Analysis in Professional football, rugby, and Olympic canoe slalom
- Strength and Conditioning in fencing and professional female rugby,
- Health initiates such as the Mayor's Golden Kilometer,
- Psychological priming to drive exercise intensity

London Sports Institute

Psychology

- Applied health psychology
- Cognitive psych. & neuroscience
- Forensic psychology
- Developmental psychology
- Community & clinical psych.
- Centre for Abuse and Trauma Studies (CATS)

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Faculty Research Centres:
London Digital Twin Research Centre

- Diverse range of activities with industry involvement:

  - DTs for Industry 4.0

  - Structural Healthcare Monitoring

  - Vertical Farming

  - Healthcare Resilience

  - Open RAN towards 5G and 6G

  - Big Data and Smart Sensor Networks

  - Heritage Restoration

  - Building Information Modelling

  https://dt.mdx.ac.uk

Partners

Sponsors

Faculty Research Centres:
Flood Hazard Research Centre (FHRC)

- The Flood Hazard Research Centre (FHRC) has focused on water, environmental management and natural hazards since the early 1970s, making it one of world's oldest centres in this field.

- Develops our understanding of the relations between people, water and the environment.

- Our studies are targeted towards helping government bodies and communities to reduce the risks from natural hazards and improve policies for current and future generations.

- We work to promote sustainable water and coastal zone management, policy and practice based upon good governance.

Flood Hazard Research Centre (FHRC)   SAVE THIS PAGE ♡

Link to FHRC

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Faculty Research Centres:
Centre for Abuse and Trauma Studies (CATS)

- The Centre for Abuse and Trauma Studies CATS is an inter-disciplinary research centre.

- CATS undertake rigorous, ethical, community-relevant research on topics related to abuse and trauma, fit for the 21st century.

- Much of the centre's work is digitally and internet informed – whether related to harms online or using innovative online methods for assessment.

https://catsresearch.org.uk

Selection of Research Groups with High Impact

Biophysics and Engineering Group

- The group focuses on high quality research in the areas of:
    - Imaging technology and its applications
    - Nanotechnology for cancer diagnostics and therapy
    - Biomaterials and biomechanics, encompassing cell surface interactions, tissue engineering structures including innovative implant design, deep brain stimulation, EEG and ECG signal analysis
    - Development of Electrical Impedance Tomography (EIT) imaging technology for neonates lung, brain function.
    - Development of imaging and analysis technologies;
    - Development of biosensors and their application to dementia and wound
    - Musculoskeletal and soft tissue biomechanics.

Universities supporting the national effort against COVID—19.
#WeAreTogether
Click Here

CRADL Project   Click Here

CoRLEIT Project
Covid Regional Lung Electrical Impedance Tomography

Facilities and Equipment Access for Companies

Middlesex offers access to its own research equipment and spaces via
https://equipment.data.ac.uk/

Forms of Collaboration

- Research collaboration in all areas of university research (arts/creative industries, science and engineering, design, social sciences, healthcare) via joint applications for funding or involvement in consortia, equipment loan, data loan/share etc.

- R&D cooperation via funded routes (e.g. Innovate UK Knowledge Transfer Partnerships) in which MU contributes knowhow, or research knowledge, or IP access.

- IP licensing from MU IP stock of patents, design registrations, copyright material (including code), image rights, data rights etc.

- Consultancy or CPD/training for your staff.

- Contract research in all areas of research

- Access to talent via student secondments, work experience, student projects on topics connected with your R&D interests or strategic interests.

- Facilities and equipment access, or sharing space or facilities, or joint ventures for new facilities, or access to *your* equipment/spaces.

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We want our students to be:

- Engaged with their discipline

- Ambitious

- Curious

- Confident

- Competent

- Motivated

- Team players

- Collaborators

- Explorers

- Risk takers

- Win awards, at every opportunity.

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Activities – Building confidence and high technical skills

WorldSkills UK - Mechatronics and Mobile Robotics (2014)   **IMechE Design Challenge – GLR winner 2023**

National Competitions - WorldSkills UK

(Student competitors from four engineering programmes)

International Competitions - WorldSkills International
Industry 4.0 – Lyon, September 2024

Mikhaela Roy, BEng Hons Mechatronics, 2023

How do we achieve these?

- Embedding competitions into our curriculum – provides opportunity for all:
  - RSA Design Competitions
  - WorldSkills Competitions (DEM organises Automation & Mechatronics)
  - IMechE Design Challenge
  - New Designers Exhibition (employer awards) / other degree shows
  - Siemens Connected Curriculum competition
- Organise extensive large scale outreach programmes:
  - New Scientist Live
  - STEM Festival
  - SMASHFest UK
- Establish strategic partnerships with industry and other key organisations, secure **Live Projects**

Our collaboration with strategic industry partners

- The programmes are supported by equipment manufacturers and employers going

   back several decades.

- We standardise on industry grade equipment, increasing your employability.

- Partnership with several industry leaders:

   - National Instruments LabVIEW Academy

   - Cisco Academy

   - Siemens – Connected Curriculum partner

   - Altium Academic Partner

- Jointly sponsored Smart Factory lab with Festo and Siemens

Our collaboration with other key organisations

WES women's engineering society

Departmental member of WES, currently setting up a WES Student Board to champion women student engineers.

GAMBICA

University member of a consortium representing 220+ automation and control equipment manufacturers. Chair of Industry/University Collaboration Council.

worldskills uk excellence at work

Organise national competitions, skill competencies built into the curriculum.

SEFI European Society for Engineering Education

Departmental member, sharing EU wide practice in engineering education. Number of staff are engaged with SIGs.

Engineering Professors COUNCIL The voice of engineering academics

Departmental member of EPC, enabling staff to exchange. Adopted their Engineering Ethics Toolkit, awaiting the Sustainability Toolkit.

STEM LEARNING

Collaborating with the London Hub, to promote STEM Ambassador scheme to our students.
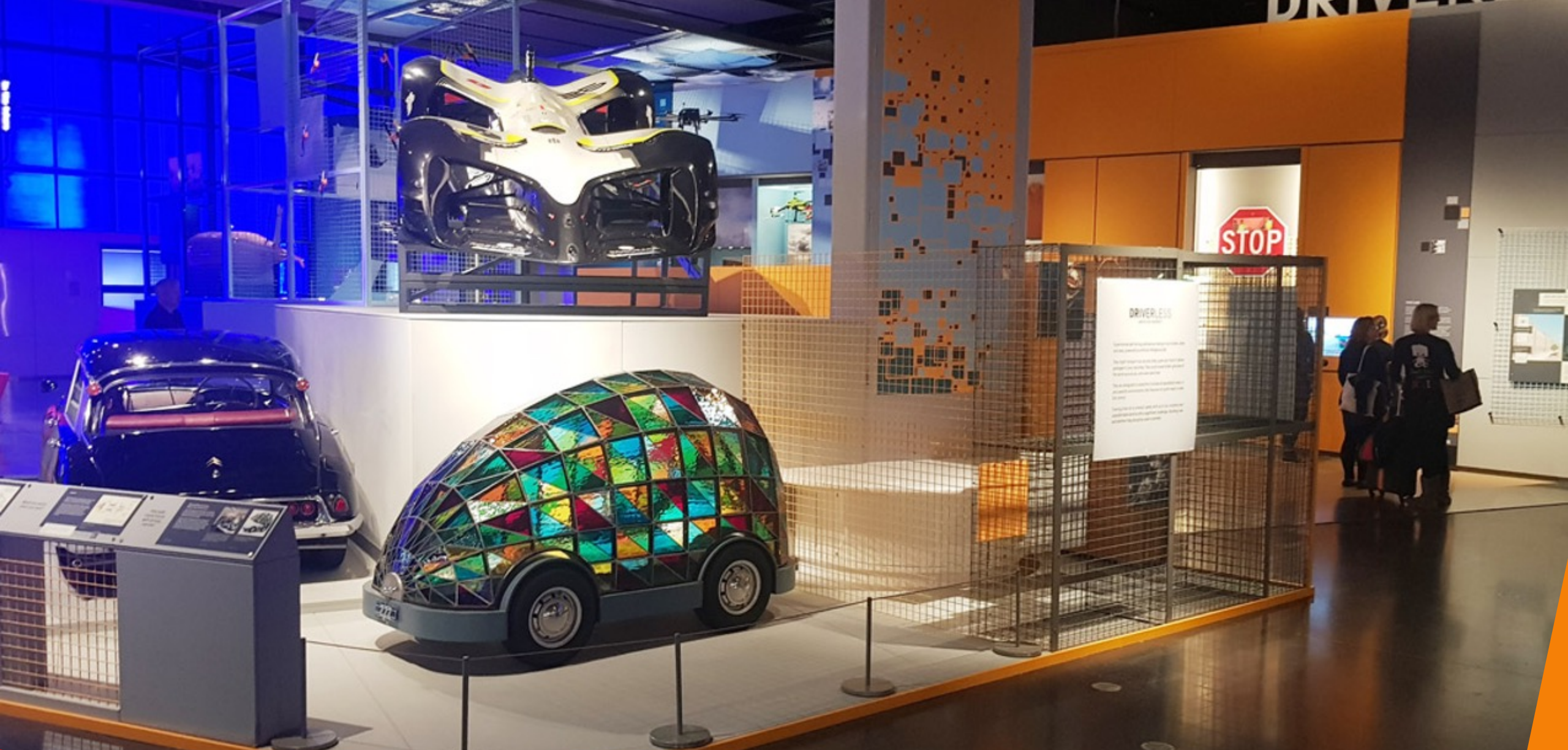
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Working with industry experts to ask big questions
Dominic Wilcox – Stained Glass Car

What should be the purpose of driverless cars?

Working with established designers
Dominic Wilcox – Stained Glass Car
(recently on display at Science Museum)

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Getting Involved!
Numerous outreach events - STEM Festival, SMASHfestUK, London Design
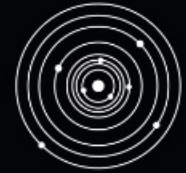Festival, WorldskillsUK Live, New Scientist live, Thorpe Park STEM fair …

MIND AND BODY

THE FUTURE

OUR PLANET

THE UNIVERSE

COME AND SEE US AT

NewScientistLive

12 – 14 OCTOBER 2024

live.newscientist.com

THANK YOU.

Prof Mehmet Karamanoglu
Head of Department
Design Engineering and Mathematics

M.Karamanoglu@mdx.ac.uk

@ProfMem
@MdxDEM

Middlesex
University
London