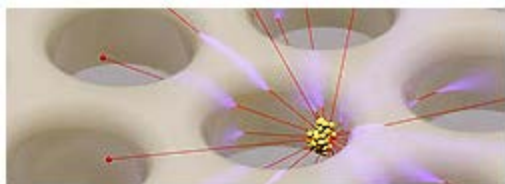


# Welcome to the School of Electrical and Electronic Engineering

[www.manchester.ac.uk/eee](http://www.manchester.ac.uk/eee)



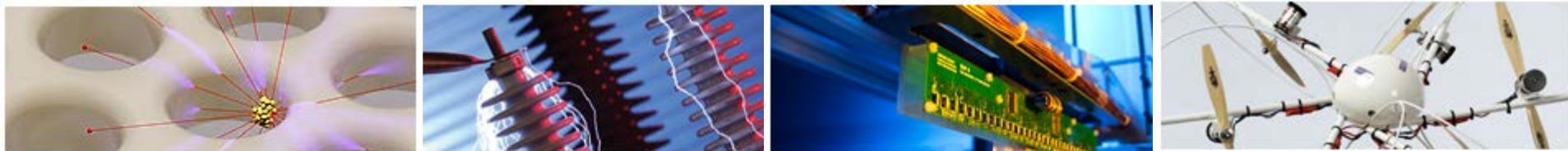


# School of Electrical and Electronic Engineering

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Professor Jovica V Milanović  
Deputy Head of School

[www.manchester.ac.uk/eee](http://www.manchester.ac.uk/eee)





# School of Electrical and Electronic Engineering

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## About Us:

- Largest of its type in the country
  - 77 academic staff
  - 25 administrative support staff
  - 25 technical support staff
- Approximately 800 undergraduate and 400 postgraduate students



# Research Areas

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- **Automatic Control Systems** (11 academics, 41 researchers)
- **Electrical Power Systems** (15 academics, 95 researchers)
- **Communication Systems** (15 academics, 72 researchers)
- **Microelectronics and Nanostructures** (7 academics, 38 researchers)
- **Electrical Power Conversion Systems** (8 academics, 39 researchers)
- **Sensing, Imaging, Signal Processing** (17 academics, 53 researchers)



# Research Themes

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- Robotics for decommissioning
- Landmine detection
- Sustainable power systems
- Green transport
- Quantum electronic devices
- Electronics for agriculture
- More-electric aircraft technologies



MANCHESTER  
1824

The University of Manchester

Diamond

National Grid High  
Voltage Labs

The Henry Royce

Dalton Cumbrian

Access to active  
Radiation science

on Centre





# Research Quality

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3<sup>rd</sup> in the UK in terms of the research impact

Over 90% of our academic staff are research active

93% of our research activity deemed to be world leading or internationally excellent

# Electrical Energy and Power Systems

- **1952** - the *Power System Laboratory* was established by Colin Adamson with a technician and two MSc students; one working on static relays and the other on the network analyser.
  - In 1953, three more MSc and two PhD students were recruited. One of the PhD students was Martin Wedepohl and the other Brian Nellist.
  - Some of the early PhD students included: El-Serafi (graduated 1955), Dastidar (57), Wedepohl (57), Dasgupta (58), Verma (58), El-Sobhi (58), Rao (59), Ray (61), Hingorani (61), Knowles (62), Reece (62), Tureli (64), Nellist, Reeve (65), Stott, Mansour (65), Swarbrick (65), Allan (66), Edwards (66), Arillaga (66), Bickford (67), Wilcox (69), Efthymiadis
- *Power System Group* continuously active since **1958**
- 50 academics were/are associated with it over the years
- **1963** - **MSc course** in Electrical Power Systems Engineering started in as the **first such course in the world**.



# Electrical Energy and Power Systems

## 15 Academics

1. Prof. Ian Cotton,
2. Prof. Peter A. Crossley
3. Prof. Jovica V. Milanović - DHoS
4. Prof. Joseph Mutale
5. Prof. Simon M. Rowland - HoS
6. Prof. Vladimir Terzija,
7. Prof. Zhongdong Wang – AD Internationalisation

1. Dr. Viktor Levi, (SL)
2. Dr. Haiyu Li (SL)
3. Dr. Qiang Liu (SL)
4. Dr. Tony Chan, (L)
5. Dr. Konstantinos Kopsidas (L)
6. Dr Mathaios Panteli (L)
7. Dr. Alessandra Parisio (L)
8. Dr. Robin Preece (L)



2 IEEE Fellows  
4 IET Fellows  
1 Fellow of Inst of Physics  
5 SMIEEE

# Prominent Past Members

Staff Member	Contribution
Colin Adamson	Pioneered power system development
Ron Allan, <i>FIEEE</i>	Power system reliability
Jose Arrillaga, <i>FIEEE</i>	HVDC
Alfred Brameller	Power system analysis, sparsity techniques
Derek Humpage	Power system protection
Ed Kuffel	HV Techniques and gas breakdown phenomena
John Reeve, <i>FIEEE</i>	HVDC
Brian Stott, <i>FIEEE</i>	Fast decoupled power flow
Martin Wedepohl	Transient phenomena and wave propagation
Nick Jenkins, <i>FIEEE</i>	Application of wind energy and renewables
Daniel Kirschen, <i>FIEEE</i>	Power system economics

# EEPS Main Research Areas

## Power Systems

- Wide area monitoring, protection and control
- Power system dynamics
- Integration of low carbon technologies
- Multi-energy networks
- T&D networks economics & operation
- Risk and Reliability Assessment of Future Energy Networks

## Power Plant

- Condition monitoring
- High voltage insulation
- Overhead line design
- Power Transformers
- Life management of Transmission & Distribution Asset