



Engineering Solutions for Engineers

High Frequency Diagnostics & Engineering (HFDE) Ltd is a contracting and consultancy business that works in partnership with companies and universities to maximise the impact of R&D outputs by utilising them in new technologies and applications. HFDE has particular expertise in high frequency sensing and diagnosis of partial discharge (PD) activity in high voltage (HV) equipment.

HFDE's founder, Dr Martin Judd, is a Chartered Electrical & Electronic Engineer with 30 years' experience in both industry (R&D, production) and academia (research, teaching, management). Martin was previously Professor of High Voltage Technologies at the University of Strathclyde in Glasgow, where he managed the David Tedford High Voltage Laboratory.

HFDE provides the following services to companies that are developing devices and systems for use in HV applications:

- Design & operation of high voltage test equipment including development / implementation of safe operating procedures & risk assessments
- Prototyping & optimisation of sensors for PD detection
- Design of mechanical components & assemblies for manufacture / production, including preparation of technical drawings
- Design and implementation of high voltage PD test facilities
- PD testing of small to medium size HV components to IEC 60270
- Consultancy on electromagnetic energy harvesting for autonomous sensors, wireless power transfer, electromagnetic modelling / calculations & radio frequency metrology
- Project management, technology evaluations & literature reviews
- Development and delivery of specialist training
- Report authoring, review and professional editing services

HFDE Ltd maintains high levels of professional integrity and aims to build open and effective working relationships with its clients. Confidentiality is assured through the founder's previous experience of working with commercially sensitive information and managing intellectual property (IP).

To discuss potential projects without obligation, please email Martin Judd at the address below.

Testimonials can be provided on request.

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