

The institute offers consulting and services in all its working fields. This offer is addressed to companies as well as to administration organizations. The consulting activities cover transfer of technological knowledge and guidance in questions of efficient use of energy. The services offered include the application of a modern measuring equipment for magnetic stray fields in industrial working areas and examinations of temperature and heat flux distributions on surfaces, using advanced thermo-graphic measuring systems.

The Institute of Electrotechnology offers seminars on Electrothermal Processes. These seminars present comprehensive, up-to-date information on all available industrial electrothermal technologies and applications. The participants are experts from industry as well as sales and customer support personnel of energy supply companies.

We are looking forward to answer your questions concerning our work or to discuss possible joint projects. We stand ready to support you with our knowledge and equipment. Do not hesitate to contact us:

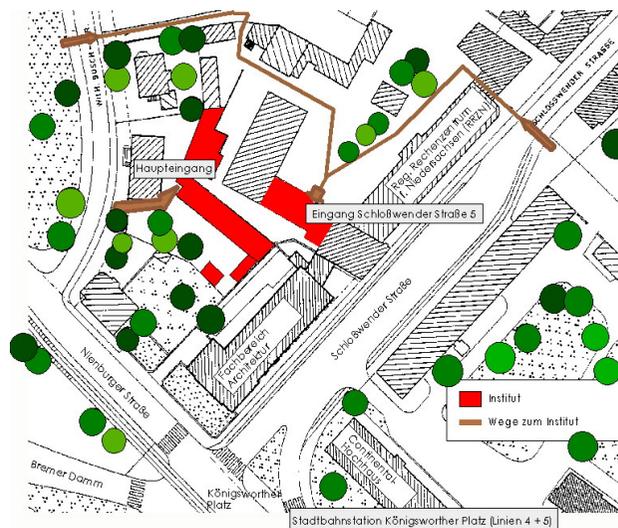
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Institute of Electrotechnology

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The Institute of Electrotechnology (ETP) of the Leibniz University of Hannover, founded in 1928, has focused its research and development activities on projects in the field of industrial electrothermal process technologies. By numerous innovative developments

Experience and Innovation

and contributions to the technological progress, the institute has gained wide recognition within the international scientific community. Today, a substantial part of Germany's research and development activities in electrothermal technology is performed at the Institute of Electrotechnology.

Electromagnetic processing of materials (EPM), in particular description, calculation and optimization of relevant non-linear electrothermal systems, is in the centre of the institute's activities. Many



of the projects are performed in co-operation

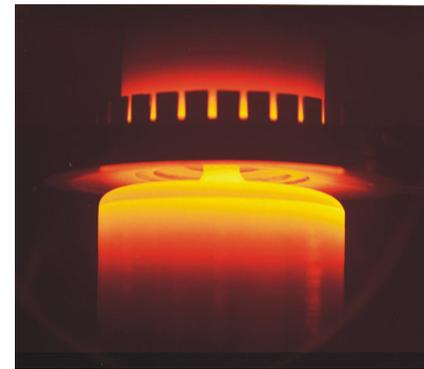
with industry and other research institutes. The activities reach from application oriented pure research to industrial development projects, including examinations in the field of efficient, environment-friendly use of energy within the industry.

The institute has many long-standing relations to European universities and research institutes. This facilitates interdisciplinary, national and international co-operation in research projects.

The ETP is guided by Prof. Dr.-Ing. B. Nacke and Prof. Dr.-Ing. E. Baake. The institute presently employs 14 researchers and 4 people with administrative and technical support tasks. The technical equipment includes experimental installations, laboratories, modern measurement systems and high performance computer systems. The institute has its own workshop.

Most of the current research and development projects in the field of electrothermal process technology are focused on induction heating and melting. Along with many new developments in the area of common ferrous and non-ferrous metals, there has been an

increase in projects concerning innovative materials for high technology applications,



points.

such as semiconductor silicon, titanium-aluminium alloys and oxides with high melting points. Activities in the field of efficient and environment-friendly use of energy include examinations of the impact of various energy sources on primary energy demand and CO₂-emissions of industrial process heat applications. Analysis and shielding of electromagnetic stray-fields

Research and Development

in the vicinity of induction heating installations are also a part of this working field. A third task is thermal analysis and energy demand management of buildings and industrial plants.