

4. Activities

The activities of the CRIEPI in FY 2009 are outlined below.

4.1 Human Resources

The CRIEPI employs 825 people as of 31st March, 2010. 724 people are employed in research fields while 101 people are involved in clerical work. Fig. 1 shows the breakdown of researchers working in diverse fields. 361 people working at the CRIEPI have a Ph.D. Of these, 77% and 9% have an engineering and science background respectively.

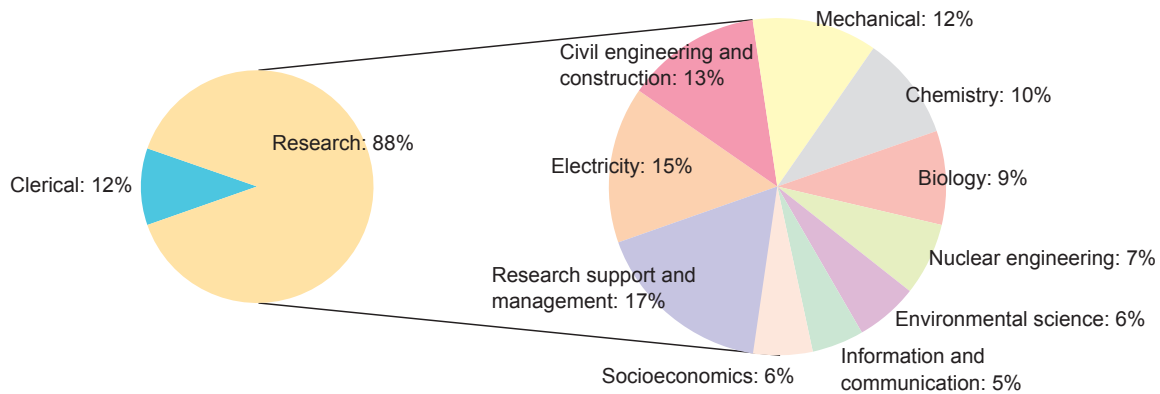


Fig. 1 Staff breakdown (as of 31st March, 2010)

4.2 Research Reports

A total of 506 CRIEPI research reports were produced in FY 2009. Of these, 354 were research reports and 152 were reports on funded research by electric power companies, the central government and others. Fig. 2 shows the breakdown of reports by subject field. The titles of the research reports, etc. which are publicly accessible are listed in Appendix⁽¹⁾. The body text of these research reports and corresponding leaflets*¹ can be downloaded from the CRIEPI's website.

*1 The timing of leaflet publication may differ from the publication timing of the corresponding report.

4.3 Presentation of Research Papers

A total of 1,696 research papers were presented in bulletins of academic societies and academic journals and at academic conferences. Of these, 496 papers were peer reviewed. Fig. 3 shows the breakdown of research papers by subject field. The titles of these papers are contained in the research paper database under "Research Results/Reports, etc." on the CRIEPI's website.

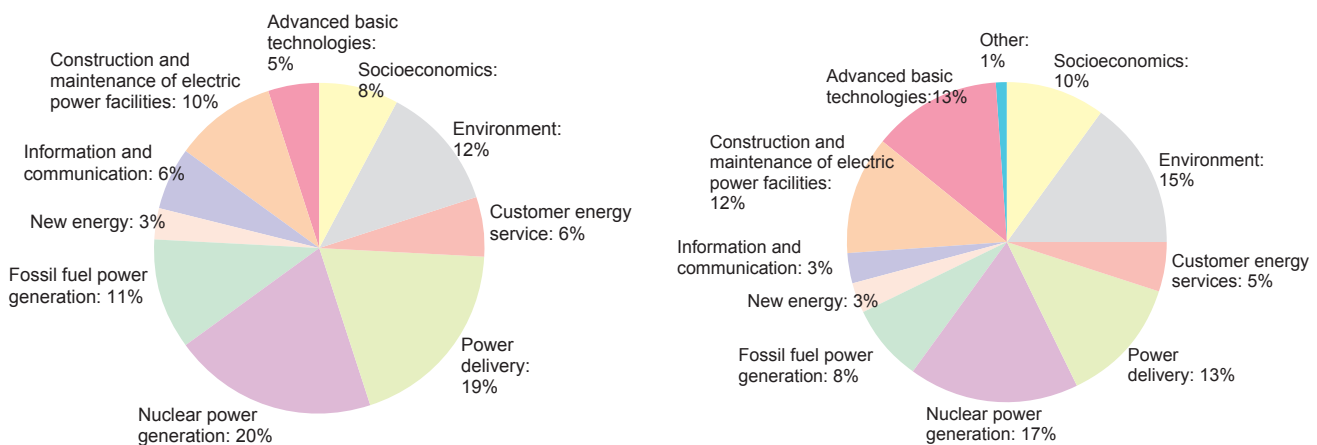


Fig. 2 Breakdown of reports by subject field

Fig. 3 Breakdown of research papers by subject field

4.4 Research Cooperation/Interchanges

4.4.1 Joint Research

172 joint researches were conducted in FY 2009. As shown in Fig. 4, universities and central government research institutes, etc. accounted for 32% and 26% of the research partners respectively.

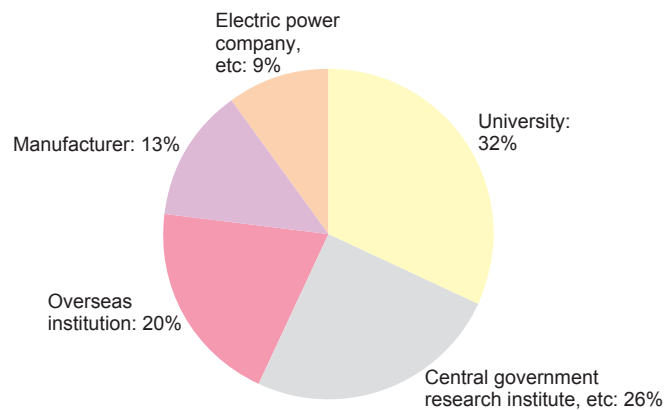


Fig. 4 Classification of research partners

4.4.2 Main International Cooperation/Interchange Schemes

The CRIEPI has been moving ahead with joint research, information exchange and human interaction with a number of research institutes overseas. Fig. 5 shows the main overseas institutes with which the CRIEPI has concluded an international agreement for cooperation. Table 1 lists the main partners of the CRIEPI for international cooperation/interchange.

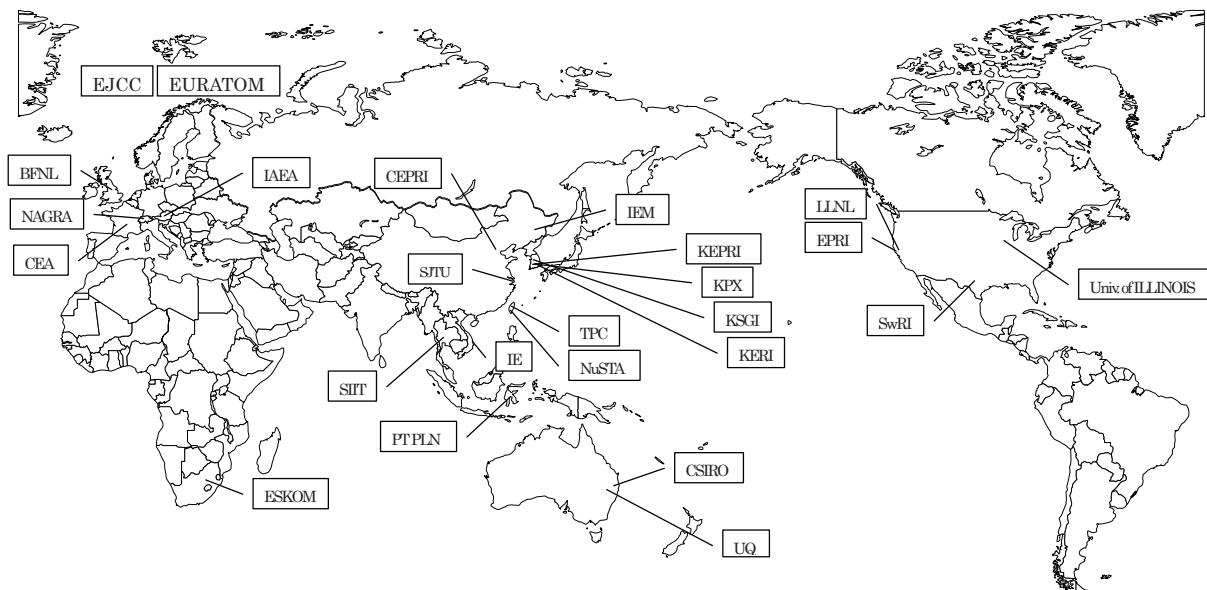


Fig. 5 Main partners in research cooperation agreements

Both the Europe and Japan Coordinating Committee (EJCC) and the European Atomic Energy Community (EURATOM) are based in Europe.

Table 1 Main international cooperation/interchange partners**Main Partners for Research Cooperation Agreement**

- ◆ Asia
 - Korea Electric Power Research Institute (KEPCO-RI)
 - Korea Electrotechnology Research Institute (KERI)
 - Korea Power Exchange (KPX)
 - Korea Smart Grid Institute (KSIGI)
 - Taiwan Power Company (TPC)
 - Nuclear Science and Technology Association of Taiwan (NuSTA)
 - Sirindhorn International Institute of Technology (SIIT), Thammasat University (Thailand)
 - Institute of Engineering Mechanics (IEM), China Seismological Bureau
 - China Electric Power Research Institute (CEPRI)
 - Shanghai Jiao Tong University (SJTU)
 - Institute of Energy Vietnam (IE)
 - Indonesia State Electricity Co., PT PLN (Persero)
- ◆ USA
 - Electric Power Research Institute (EPRI)
 - Southwest Research Institute (SWRI)
 - University of Illinois
 - Lawrence Livermore National University (LLNU)
- ◆ Europe
 - Europe and Japan Coordinating Committee (EJCC)
 - European Atomic Energy Community (EURATOM), EU
 - National Cooperative for the Disposal of Radioactive Waste (NAGRA), Switzerland
 - French Atomic Energy Commission (CEA)
 - British Nuclear Fuel plc (BNFL)
 - International Atomic Energy Agency (IAEA)
- ◆ Oceania
 - Commonwealth Scientific and Industrial Research Organization (CSIRO), Australia
 - University of Queensland (UQ), Australia
- ◆ Africa
 - ESKOM, South Africa

Main Partners for Joint Research in Progress

- ◆ Asia
 - Institute of Nuclear Science and Technology (INST), Vietnam
 - Taiwan Power Research Institute (TPRI)
 - Surfactant and Bioenergy Research Center (SBRC), Bogor Agricultural University (IPB), Indonesia
 - Korea Electric Power Research Institute (KEPCO-RI)
 - Korea Atomic Energy Research Institute (KAERI)
 - APEC Climate Center (APCC), Korea
- ◆ USA (including Canada)
 - Regional Economics Applications Laboratory (REAL), University of Illinois
 - Electric Power Research Institute (EPRI)
 - Idaho National Laboratory (INL)
 - National Center for Atmospheric Research (NCAR)
 - New Mexico Institute of Mining and Technology
 - United States Nuclear Regulatory Commission (USNRC)
 - University of New Brunswick (UNB), Canada
- ◆ Europe
 - VaasaETT Global Energy Think Tank, Finland
 - French Atomic Energy Commission (CEA)
 - Électricité de France (EDF)
 - University of Bremen, Germany
 - Forschungszentrum Karlsruhe GmbH (FZK/INE), Germany
 - Gesellschaft für Nuklear-Service mbH (GNS), Germany
 - Institute for Transuranium Elements (ITU), Germany
 - International Atomic Energy Agency (IAEA), Austria
 - Swedish Nuclear Fuel and Wastes Management Co. (SKB)
 - Studsvik Nuclear, Sweden
 - The Von Karman Institute for Fluid Dynamics, Belgium
 - National Cooperative for the Disposal of Radioactive Waste (NAGRA), Switzerland
- ◆ Oceania
 - Geodynamics Ltd., Australia
 - ZeroGen Pty Ltd., Australia
 - Commonwealth Scientific and Industrial Research Organization (CSIRO), Australia
- ◆ Other (involvement of institutes from multiple countries)
 - Mont Terri Consortium
 - Halden Reactor Project

Participation in International Organizations

- Union of the Electricity Industry (EURELECTRIC)
- Short-Circuit Testing Liaison (STL)
- Association of Electricity Supply Industry of East Asia and Western Pacific (AESIEAP)
- World Nuclear Association (WNA)
- International Electric Research Exchange (IERE)
- Electromagnetic Transients Program - Development Coordination Group (EMTP-DCG) Committee

4.5 Forums, Seminars and Other Events

The following forums, seminar and open day were organized in FY 2009.

◆ CRIEPI Forum 2009

"CRIEPI's Efforts for the Realisation of a Low Carbon Society", 21st and 22nd October, 2009 in Tokyo (Japan Education Center)

◆ Regional Forums

- CRIEPI Forum 2009 Osaka

"CRIEPI's Efforts for the Realisation of a Low Carbon Society", 24th November, 2009 in Osaka (Osaka Science & Technology Center: OSTEC); backed by Kansai Electric Power Co., Inc.

- CRIEPI Forum 2009 Sapporo

"CRIEPI's Efforts for the Realisation of a Low Carbon Society", 27th November, 2009 in Sapporo (Hotel New Otani Sapporo); backed by Hokkaido Electric Power Co., Inc.

◆ Energy and Environment Forums

-23rd April, 2009 in Saga (Hotel Renaissance Sousei)

-16th October, 2009 in Kamaishi (Kamaishi City Hall)

-16th January, 2010 in Tokyo (Denryokukan: TEPCO Information Center)

-29th January, 2010 in Osaka (Dawn Center)

◆ Laboratory Open Days

-Akagi Test Center: 25th May, 2009

-Open day events are normally held at the CRIEPI's research facilities in Komae, Abiko and Yokosuka but were suspended in these areas in FY 2009 to prevent a further spread of the new influenza virus.

4.6 Industrial Property Rights

64 patents were registered and 142 patent applications were made in FY 2009. Of the newly registered industrial property rights, the main ones are listed in Appendix (2). 72 patents or know-hows*² were newly licensed in FY 2009.

4.7 Software

The CRIEPI has its own software registration system for the management of copyright. A registered software may be licensed to electric companies, other profit-making enterprises and universities in response to their request. The number of new software registrations and the number of new licenses awarded were 100 and 319 (821 copies) respectively.

4.8 Other

The CRIEPI or its executives and regular employees wrote or edited eight major books in FY2009 while executives and regular employees received external awards on 32 occasions (total of 39 persons). These are listed in Appendix (3) and Appendix (4) respectively. A list of the CRIEPI's publications can be found in Appendix (5). The CRIEPI Home Page which commenced full-scale service in FY 1995 as an information service accessible by the public continued. The CRIEPI's World Wide Web Information Service (<http://criepi.denken.or.jp>) offers not only summaries of research reports which are open to public access but also information on the CRIEPI's wide-ranging activities in Japanese and English.

*2 This figure is based on the number of actually licensed intellectual property rights and know-hows.