

4. Activities

The activities of the CRIEPI in FY 2010 are outlined below.

4.1 Human Resources

The CRIEPI employs 835 people as of 31st March, 2011. 735 people are employed in research fields while 100 people are involved in clerical work. Fig. 1 shows the breakdown of researchers working in diverse fields. 366 people working at the CRIEPI have a Ph.D. Of these, 77% and 10% have an engineering and science background respectively.

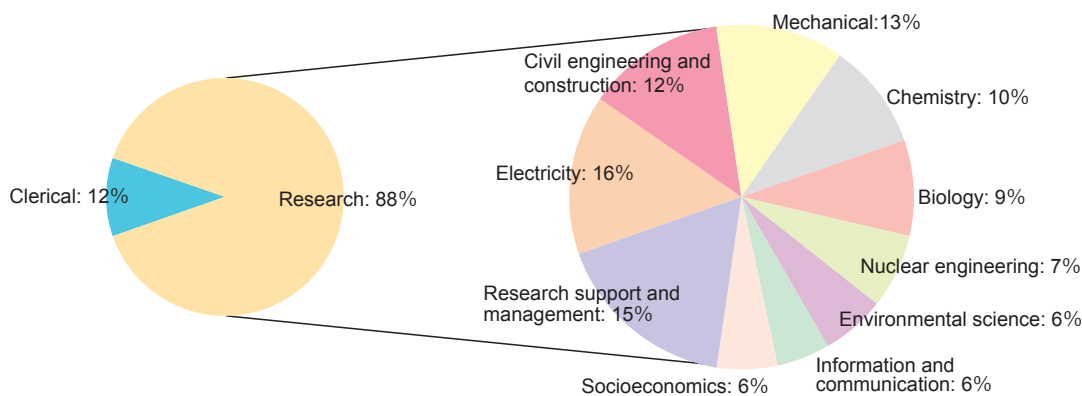


Fig. 1 Staff breakdown (as of 31st March, 2011)

4.2 Research Reports

A total of 562 CRIEPI research reports were produced in FY 2010. Of these, 405 were research reports and 157 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 1,605 research papers were presented in bulletins of academic societies and academic journals and at academic conferences. Of these, 444 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.

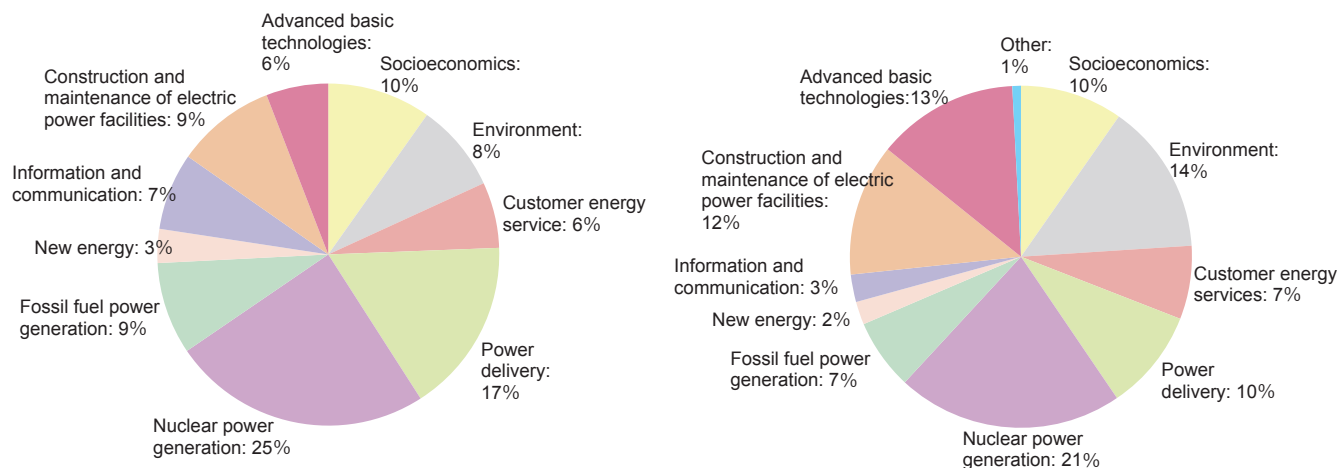


Fig. 2 Breakdown of reports by subject field

Fig. 3 Breakdown of research papers by subject field

4.4 Research Cooperation/Interchanges

4.4.1 Joint Research

180 joint researches were conducted in FY 2010. As shown in Fig. 4, universities and central government research institutes, etc. accounted for 34% and 22% of the research partners respectively.

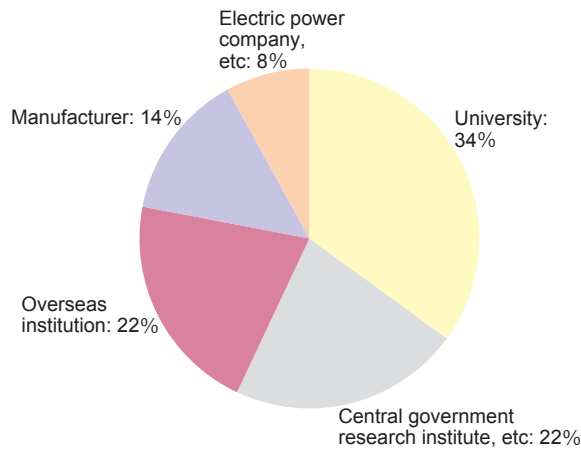


Fig. 4 Classification of research partners

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.

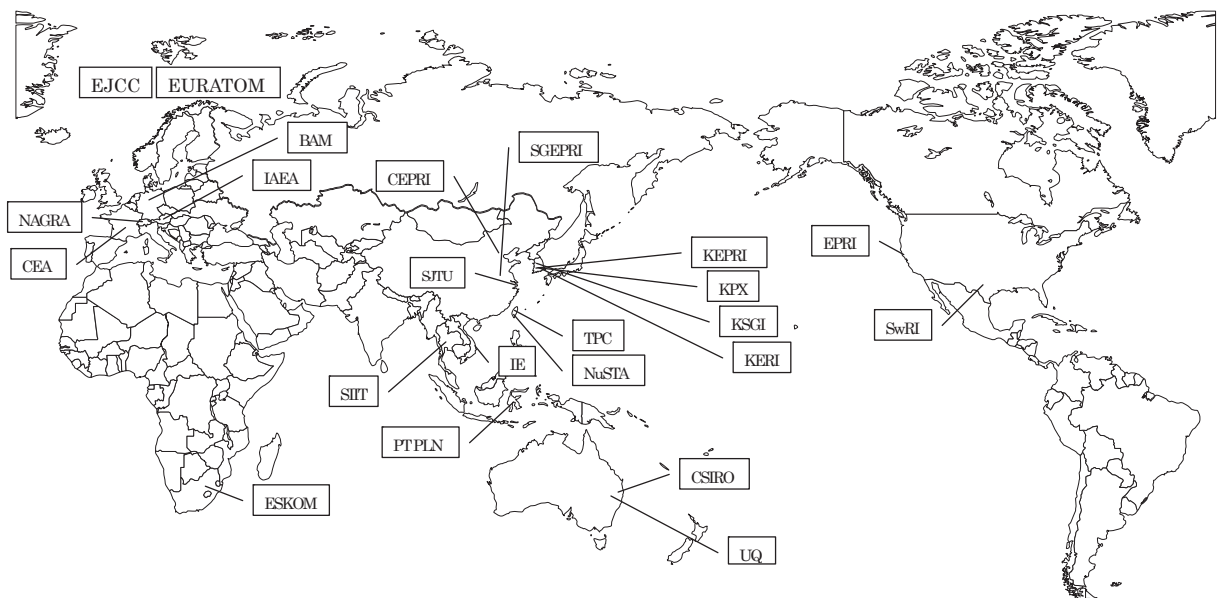


Fig. 5 Main partners in research cooperation agreements

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 (KEPRI)
 - Korea Electrotechnology Research Institute (KERI)
 - Korea Power Exchange (KPX)
 - Korea Smart Grid Institute (KSIG)
 - Taiwan Power Company (TPC)
 - Nuclear Science and Technology Association of Taiwan (NuSTA)
 - Sirindhorn International Institute of Technology (SIIT), Thammasat University, Thailand
 - China Electric Power Research Institute (CEPRI)
 - State Grid Electric Power Research Institute (SGEPRI), China
 - Shanghai Jiao Tong University (SJTU)
 - Institute of Energy Vietnam (IE)
 - Indonesia State Electricity Corporation (PT PLN), Persero
- ◆ USA
 - Electric Power Research Institute (EPRI)
 - Southwest Research Institute (SwRI)
- ◆ 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)
 - Federal Institute for Materials Research and Testing (BAM), Germany
 - 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
 - Taiwan Power Research Institute (TPRI)
 - Korea Electric Power Research Institute (KEPRI)
 - APEC Climate Center (APCC), Korea
 - Surfactant and Bioenergy Research Center (SBRC), Bogor Agricultural University (IPB), Indonesia
- ◆ 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)
 - University Corporation for Atmospheric Research (UCAR)
 - New Mexico Institute of Mining and Technology
 - United States Nuclear Regulatory Commission (USNRC)
 - Lawrence Berkeley National Laboratory (LBNL)
 - University of New Brunswick (UNB), Canada
- ◆ Europe
 - French Atomic Energy Commission (CEA)
 - Électricité de France (EDF)
 - Swedish Nuclear Fuel and Wastes Management Company (SKB)
 - Studsvik Nuclear, Sweden
 - The Von Karman Institute for Fluid Dynamics, Belgium
 - National Cooperative for the Disposal of Radioactive Waste (NAGRA), Switzerland
 - VaasaETT Global Energy Think Tank, Finland
 - POSIVA, Finland
 - RWTH Aachen University, Germany
 - Institute for Transuranium Elements (ITU), Germany
 - Forschungszentrum Karlsruhe GmbH (FZK/INE), Germany
 - Gesellschaft für Nuklear-Service mbH (GNS), Germany
 - Federal Institute for Materials Research and Testing (BAM), Germany
 - Forschungszentrum Dresden - Rossendorf (FZD), Germany
 - Federal Ministry of Economics and Technology (BMWi), Germany
 - International Atomic Energy Agency (IAEA), Austria
- ◆ Oceania
 - Geodynamics Ltd., Australia
 - ZeroGen Pty Ltd., 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 laboratory were organized in FY 2010.

◆ CRIEPI Forum 2010

"Technological Development for the Realisation of a Low Carbon Society", 26th and 27th October, 2010 in Tokyo (Tokyo Big Site Convention Hall)

◆ Energy and Environment Forums, Externally Requested Lectures and Other

-22nd April, 2010 in Saga (Hotel Renaissance Sousei)

-28th July, 2010 in Osaka (Nakanoshima Centre Building)

-15th January, 2011 in Saitama (With You Saitama)

◆ Open Laboratory

-Akagi Testing Center: 23rd May, 2010

-Komae Site: 2nd October, 2010

-Abiko Site: 2nd October, 2010

-Yokosuka Site: 16th October, 2010

4.6 Industrial Property Rights

120 patents were registered and 133 patent applications were made in FY 2010. Of the newly registered industrial property rights, the main ones are listed in Appendix (2). 15 patents or know-hows*² were newly licensed in FY 2010.

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 85 and 385 (1,025 copies) respectively.

4.8 Other

The CRIEPI or its executives and regular employees wrote or edited nine major books in FY 2010 while executives and regular employees received external awards on 45 occasions (total of 67 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's World Wide Information Service (<http://criepi.denken.or.jp/>) which is freely accessible by the public has been fully operational since FY 1995, providing not only the summaries and full contents of a number of both ongoing and completed researches but also the annual research report as well as other publications, including the CRIEPI News (<http://criepi.denken.or.jp/research/news/>) which is a series of leaflets explaining the research results of the CRIEPI in plain language with photographs and illustrations for easy understanding. Although the above sites are offered in Japanese, the CRIEPI also offers an English language site with extensive contents (<http://criepi.denken.or.jp/en/index.html>).

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