

4. Activities

The activities of the CRIEPI in FY 2011 are outlined below.

1 Human Resources

The CRIEPI employs 835 people as of 31st March, 2012. 736 people are employed in research fields while 99 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.

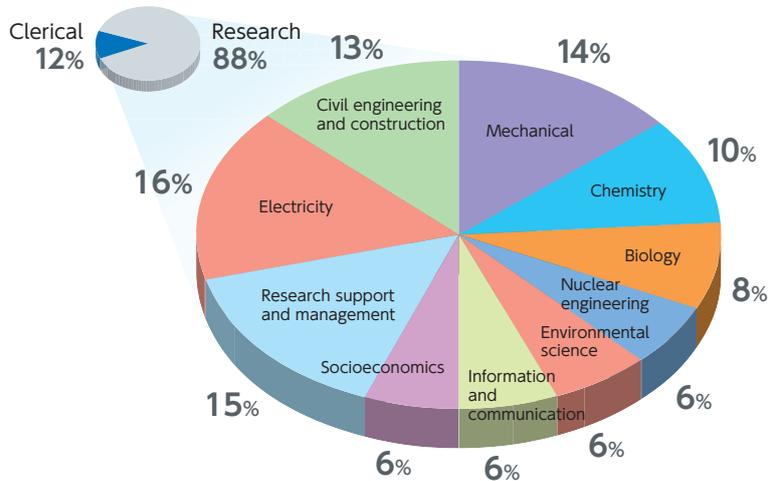


Fig. 1: Staff breakdown

2 Research Reports

A total of 595 CRIEPI research reports were produced in FY 2011. Of these, 464 were research reports and 131 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* can be downloaded from the CRIEPI's website.

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

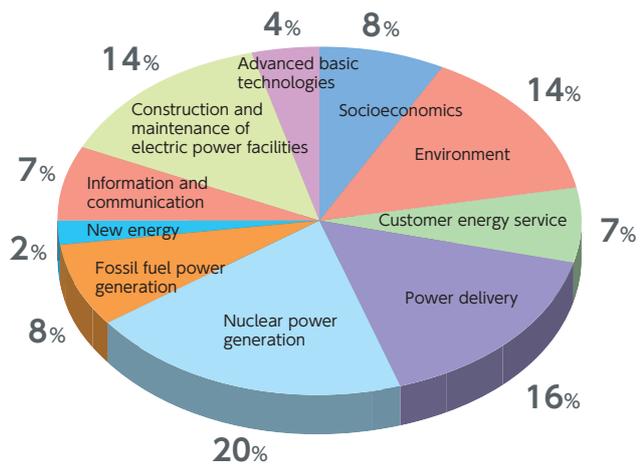


Fig. 2: Breakdown of reports by subject field

3 Presentation of Research Papers

A total of 1,407 research papers were presented in bulletins of academic societies and academic journals and at academic conferences. Of these, 383 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.

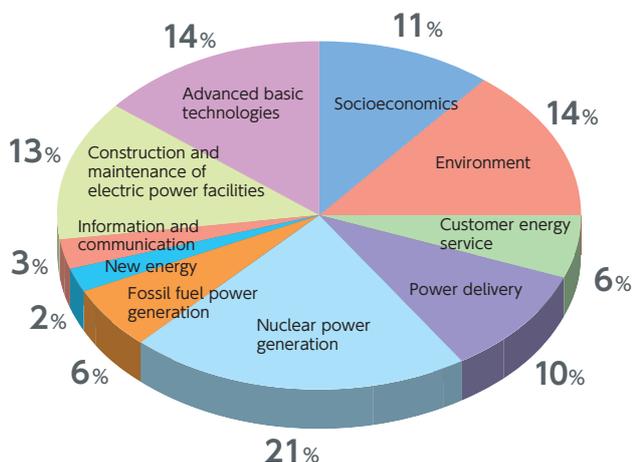


Fig. 3: Breakdown of research papers by subject field

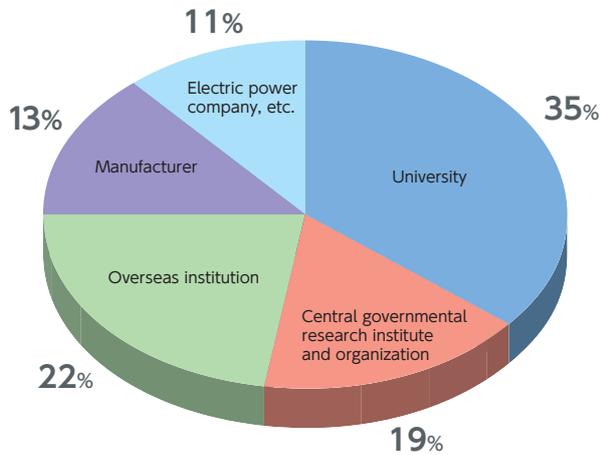


Fig. 4: Classification of research partners

4 Research Cooperation / Interchanges

4-1 Joint Research

A total of 192 joint research projects were conducted in FY 2011. As shown in Fig. 4, universities and central governmental research institutes, etc. accounted for 35% and 19% of the research partners respectively.

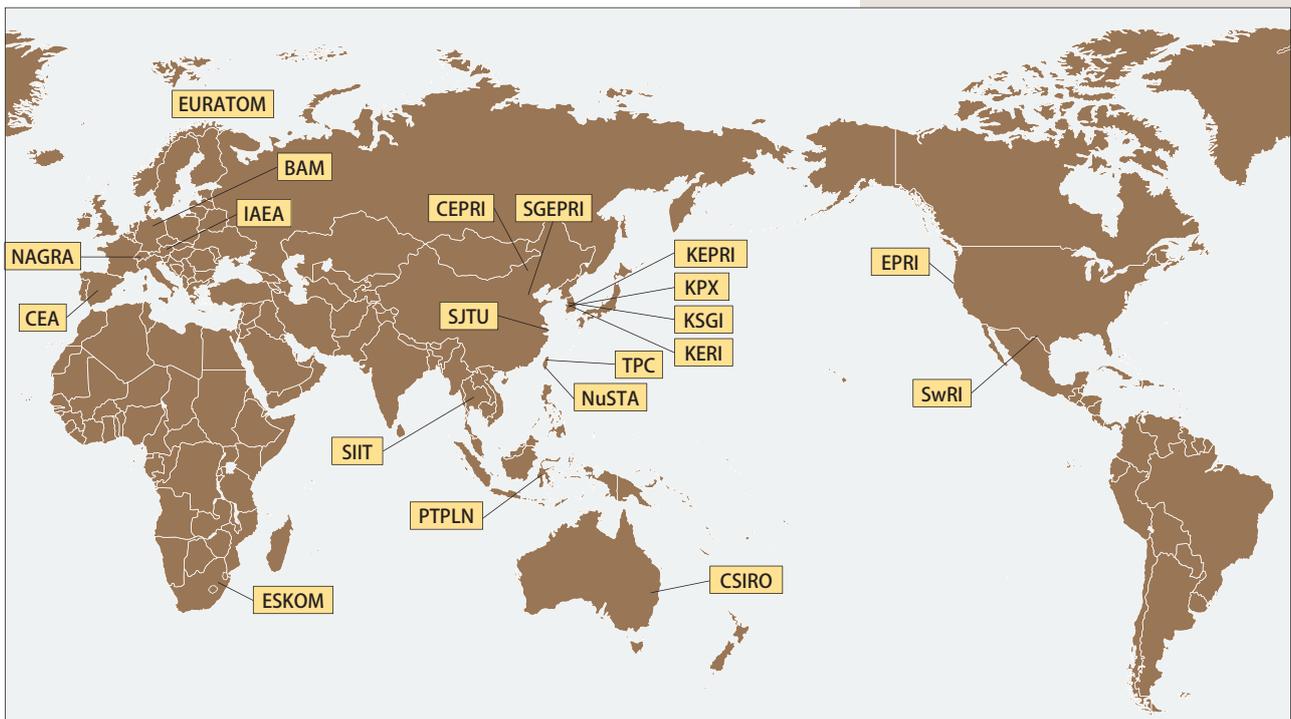


Fig. 5: Main partners in research cooperation agreements
The European Atomic Energy Community (EURATOM) is based in Europe.

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 (p.110) lists the main partners of the CRIEPI for international cooperation / interchange.

4. Record of Activities The following is the summary

Table 1 Main international cooperation/interchange partners

Main Partners for Research Cooperation Agreement	
Asia	
Korea Electric Power Research Institute (KEPRI)	Sirindhorn International Institute of Technology (SIIT), Thammasat University, Thailand
Korea Electrotechnology Research Institute (KERI)	China Electric Power Research Institute (CEPRI)
Korea Power Exchange (KPX)	Sate Grid Electric Power Research Institute (SGEPRI), China
Korea Smart Grid Institute (KSGI)	Shanghai Jiao Tong University (SJTU), China
Taiwan Power Company (TPC)	Indonesia State Electricity Corporation (PT PLN), Persero
Nuclear Science and Technology Association of Taiwan (NuSTA)	
USA	
Electric Power Research Institute (EPRI)	Southwest Research Institute (SwRI)
Europe	
European Atomic Energy Community (EURATOM), EU	Federal Institute for Materials Research and Testing (BAM), Germany
National Cooperative for the Disposal of Radioactive Waste (NAGRA), Switzerland	International Atomic Energy Agency (IAEA)
French Atomic Energy Commission (CEA)	
Oceania	
Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	
Africa	
ESKOM, South Africa	

Main Partners for Joint Research in Progress	
Asia	
Taiwan Power Research Institute (TPRI)	Surfactant and Bioenergy Research Center (SBRC), Bogor Agricultural University (IPB), Indonesia
APEC Climate Center (APCC), Korea	
North America	
Regional Economics Applications Laboratory (REAL), University of Illinois	New Mexico Institute of Mining and Technology
Electric Power Research Institute (EPRI)	United States Nuclear Regulatory Commission (USNRC)
Idaho National Laboratory (INL)	Lawrence Berkeley National Laboratory (LBNL)
National Center for Atmospheric Research (NCAR)	Nuclear Waste Management Organization (NWMO), Canada
University Corporation for Atmospheric Research (UCAR)	
Europe	
French Atomic Energy Commission (CEA)	RWTH Aachen University, Germany
Électricité de France (EDF)	Institute for Transuranium Elements (ITU), Germany
National Agency for Radioactive Waste Management (ANDRA), France	Forschungszentrum Karlsruhe GmbH (FZK), Germany
Swedish Nuclear Fuel and Waste Management Company (SKB)	Gesellschaft für Nuklear-Service mbH (GNS), Germany
Studsvik Nuclear, Sweden	Federal Institute for Materials Research and Testing (BAM), Germany
The Von Karman Institute for Fluid Dynamics, Belgium	Forschungszentrum Dresden - Rossendorf (FZD), Germany
National Cooperative for the Disposal of Radioactive Waste (NAGRA), Switzerland	Federal Ministry of Economics and Technology (BMWi), Germany
VaasaETT Global Energy Think Tank, Finland	Leibniz Institute for Solid state and Materials Research (IFW), Dresden
POSIVA, Finland	Friedrich Schiller University Jena, Germany
Radioactive Waste Repository Authority (RAWRA), the Czech Republic	Polytechnic University of Turin, Italy
Comenius University, Bratislava	National Research Council, Italy
International Atomic Energy Agency (IAEA), Austria	University of Twente, Netherlands
Oceania	
Geodynamics Ltd., Australia	ZeroGen Pty Ltd., Australia
Curtin University, Australia	
Other (involvement of institutes from multiple countries)	
Mont Terri Consortium	Halden Reactor Project

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

of the activities that the CRIEPI was engaged in FY 2011.

5 Forums, Seminars and Other Events

The following forums, seminar and open laboratory were organized in FY2011.

- CRIEPI Forum 2011 (special version-<part I>)
Special forum on the restoration and recovery efforts following Fukushima Daiichi Nuclear Disaster.
November 10th, 2011, IINO Hall, Tokyo
- Energy and Environmental Forums
November 26th, 2011, Osaka Municipal Lifelong Learning Center, Osaka
January 21st, 2012, Kanagawa Plaza for Global Citizenship ("Earth Plaza"), Yokohama

6 Industrial Property Rights

170 patents were registered and 97 patent applications were made in FY 2011. 11 patents or know-how* were newly licensed in FY 2011.

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 92 and 299 (716 copies) respectively.

8 Other

The CRIEPI or its executives and regular employees wrote or edited five major books in FY 2011 while executives and regular employees received external awards on 49 occasions (total of 67 persons). The "CRIEPI's World Wide Information Service" (<http://criepi.denken.or.jp/>) is a free and publicly accessible service that has been running since FY 1995. Although the above sites are offered in Japanese, the CRIEPI also offers an English language site with wealth of information. (<http://criepi.denken.or.jp/en/index.html>)

They provide access to the summaries of a number of non-confidential research documents and annual research reports, as well as publications such as the "CRIEPI News" (<http://criepi.denken.or.jp/research/news>) which is a series of leaflets that uses plain language, photographs, and illustrations to introduce the research findings of the CRIEPI in a way that is easy for the general public to understand.

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