

JAHRESTAGUNG KERNTECHNIK ANNUAL MEETING ON NUCLEAR TECHNOLOGY

22.–24. Mai 2012 | 22–24 May 2012
Kultur- & Kongresszentrum
Liederhalle Stuttgart

Invitation and Call for Papers



Further information will be available
from September 1, 2011 on:

www.kerntechnik.info

The German Nuclear Society and the German Atomic Forum will jointly arrange the ANNUAL MEETING ON NUCLEAR TECHNOLOGY 2012 at the Kultur- & Kongresszentrum Liederhalle Stuttgart, Germany, from 22 to 24 May 2012.

Numerous experts from Germany and abroad are expected to attend this conference.

The programme will comprise three categories of lecture events:

- Plenary Session with survey talks
- Topical Sessions with invited papers
- Technical Sessions with papers contributed to the meeting

The programme of the **Plenary Session** will focus on recent political developments in Germany as well as on international aspects of nuclear energy and deep geological disposal.

The **Topical Sessions** will partly be held in parallel on the following subjects:

- Robustness of European Nuclear Power Stations against external hazards exceeding the design basis
- New Developments in Fuel Assembly Technology to Resolve Current Questions
- Calculation of Discharge of Fluids and Gases, Jet and Thrust Forces and Wave Forces on Installations, Structures and Components
- Decommissioning and Final Disposal – National and International Prospects

The programme will be supplemented by the Nuclear Energy Campus. This event is dedicated as briefing for high school students.

The complete detailed programme will be available in early 2012.

Latest information will also be available on the web page:

www.kerntechnik.info

We would like to encourage submitting technical and scientific papers to the ANNUAL MEETING ON NUCLEAR TECHNOLOGY 2012. Many of the papers submitted will be selected for presentation.

Papers should cover one of the general topics listed below (for further details, see page 2):

- Reactor Physics and Methods of Calculation
- Thermo Dynamics and Fluid Dynamics
- Safety of Nuclear Installations – Methods, Analyses, Results
- Front End of the Fuel Cycle, Fuel Elements and Core Components
- Radioactive Waste Management, Storage
- Operation of Nuclear Installations
- New Build and Innovations
- Decommissioning of Nuclear Installations

- Fusion Technology
- Energy Industry and Economics
- Radiation Protection
- Education, Expert Knowledge, Know-how-Transfer

Required are so called **Compacts**. **Compacts** are shorter than full papers but longer than abstracts. In general, they cover up to four pages of text and up to six pages including tables and graphs.

Only those **Compacts** can be considered which will be submitted online via www.kerntechnik.info not later than by **December 1, 2011** together with the completed application form which must be filled in online as well.

We kindly ask you to stick to this deadline in order to facilitate the reviewers of the compacts and to ensure a smooth procedure.

The **Compacts** should contain summaries of the results and concepts of the work covered. In particular, they should present new findings, the objectives, descriptions of the methods employed, and possibilities of generalization. The references used must be indicated.

Contributions must meet the formal requirements outlined on page 3 of this invitation. Papers failing to meet them cannot be considered.

Conference languages are English and German. Simultaneous interpretation between these two languages will be provided for the Plenary Session only. In view of the increasing international cooperation, and also in the interest of the many participants from abroad, English should be preferred.

Compacts received will be subject to a peer review. A selection will be made in early 2012. Authors will be informed of the decision of the Peer Review Committee without delay. The right to combine papers on closely related subjects is reserved.

Authors whose papers have been accepted must nevertheless remit a **congress fee**. For the speaker this fee will be reduced by 25 % (for regular fees see preliminary programme in early 2012).

Especially younger colleagues (< 35) should be encouraged to present their work on this occasion. They may be assured of the kind interest of the paper selection committees. Those belonging to this group are kindly requested to indicate their birthday.



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SUBJECT CATEGORIES

Section 1: Reactor Physics and Methods of Calculation

- Mathematical Methods, Including Numerical Procedures
- Computer Codes
- Application of Advanced Computer Systems
- Incore Management Codes
- Core Design
- Nuclear Data for Reactors
- Reactor Dynamics and Reactor Control
- Fuel Management Systems
- Physics Experiments and their Interpretation
- Criticality Analysis
- Actinides

Section 2: Thermo Dynamics and Fluid Dynamics

- Experiments and their Interpretation
- Mathematical Methods
- Computer Codes
- Design of Core Cooling Systems
- Thermo Dynamic and Fluid Dynamic Aspects in Safety
- Plant Dynamics and Plant Control
- Nuclear and Thermodynamic Design of Research Reactors

Section 3: Safety of Nuclear Installations – Methods, Analyses, Results

- Safety Analysis of the Reactor System and its Components
- Safety Analysis in Waste Management
- Safety Management
- Experimental Safety Studies
- Environmental Releases of Activity
- Reliability and Safety of Nuclear Power Plants
- Probabilistic Safety Analysis/Assessment
- Safety Evaluation of Backfitting Measures
- Severe Accident Investigations
- Accident Management Measures
- Periodic Safety Inspections
- Safety Aspects of Research Reactors

Section 4: Front End of the Fuel Cycle, Fuel Elements and Core Components

- Fuel Supply and Enrichment
- Nuclear Fuels
- Reprocessing
- Nuclear Materials Safeguards
- Materials for Core Components and Fuel Elements
- Fabrication of Fuel Elements
- Design
- In-pile Experiments
- Operational Behaviour
- Fuel Management

Section 5: Radioactive Waste Management, Storage

- Treatment and Storage of Fuel Elements and Radioactive Waste
- Management of Operational Waste
- Transportation
- Interim and Final Storage

Section 6: Operation of Nuclear Installations

- Reactor Chemistry and Power Plant Chemistry
- Component Materials and their Characteristics in Operation
- Mechanical Components and Systems in Reactor Plants
- Components of Auxiliary and Ancillary Systems

- Turbine Plants
- Electrical- and I & C-Equipment
- Computer Based Operation
- Protection and Safety Systems (Mechanical and Electrical)
- Maintenance and In-Service Inspection
- Quality Assurance
- Organisation of Power Plant Operation
- Man-Machine Interfaces
- Legal Aspects of Operation
- Operation of Research Reactors
- Application of Research Reactors

Section 7: New Build and Innovations

- New Build Projects
- Advanced Reactor Concepts
- Generation IV
- Innovations at Existing Plants
- Modernisation and Backfitting Projects
- Licensing Process
- Nuclear Energy Sources for Special Applications

Section 8: Decommissioning of Nuclear Installations

- Decommissioning of Nuclear Power Plants and Research Reactors
- Decommissioning Installations of the Fuel Cycle
- Old Contaminations
- Management of Decommissioning Waste
- Legal Aspects of Decommissioning

Section 9: Fusion Technology

- Plasma Physics Experiments
- Reactor-related Systems
- Blankets and Blanket Materials
- Fuel Cycle
- Magnetic and Plasma Heating
- Materials of the First Wall and Structural Materials
- Remote Handling in Fusion
- Safety and Environmental Impacts

Section 10: Energy Industry and Economics

- Energy Requirement, Energy Supply
- Sources of Primary Energy (Fossil, Nuclear, and Others)
- Electricity Economy
- Nuclear Energy Sources for Special Applications
- Micro- and Macroeconomics
- Environment, Risk Comparisons
- Economic Comparisons

Section 11: Radiation Protection

- Technology and Radiation Protections Applications
- Dosimetry
- Monitoring
- Emergency Radiation Protection Measures
- Data Processing in Radiation Protection
- Application of Radio Nuclids

Section 12: Education, Expert Knowledge, Know-how-Transfer

- Know How Management
- Simulators
- Education and Expert Knowledge

COMPACT SUBMISSION

How to submit compacts?

Compacts may be submitted only electronically from **September 1, 2011** until **December 1, 2011** via the conference website at: www.kerntechnik.info

On the website you will find detailed instructions regarding the submission procedures. Compacts must be submitted in PDF format (Adobe).

Please name the file by your name, for example if your name is Michael Brown, the file submitted should be named michael-brown-1.pdf and in case you submit a second one it should be named michael-brown-2.pdf and so on.

Additional information concerning Compacts

You should not mistake a so called Compact with the internationally more common abstract. In comparison with an abstract, a Compact is much more detailed. In general, the length of the compact should not exceed four pages of text and a maximum number of six pages including tables, pictures, graphs. It should not only explain what the author intends to present but summaries the main results and concepts of the work. In particular, a compact should explain new findings, the objectives, descriptions of the methods used and the possibility of generalization.

A Compact has two purposes:

1. It is needed by the Peer Review Committee to decide whether the paper is suitable or not to be presented during the Annual Meeting on Nuclear Technology.
2. In case it will be accepted, this Compact will be published on the conference CD Rom or DVD.

If you need assistance, you may call our hotline daily from Monday – Friday, 9 – 17 h, +49 (0) 30–300 669 0 or send an e-mail to our helpdesk: jtkerntechnik2012@cpo-hanser.de

Copyright of the papers accepted for presentation at the ANNUAL MEETING ON NUCLEAR TECHNOLOGY passes to INFORUM GmbH.

Accepted compacts will be published in the proceedings on CD ROM or DVD.

Additional information concerning application for submission of compacts to the ANNUAL MEETING ON NUCLEAR TECHNOLOGY 2012.

The submission system will generate a temporary submission number that must be used in all correspondences. If you do not receive this number immediately after your submission please contact us via e-mail jtkerntechnik2012@cpo-hanser.de or phone +49 (0) 30–300 669 0.

An application form containing general information regarding your compact and the author(s) must be completed on the website. Furthermore, you are obliged to choose a section which best corresponds to the content of your abstract and to tick the relevant box corresponding to your preferred time for presentation.

HOW TO PREPARE COMPACTS?

Typeface | Layout | Format

The page size to be delivered is DIN A4 (210 x 297 mm). It is important that the type area does not exceed 160 x 250 mm. The height of the typefaces must be 12 pt. The maximum number of characters should not exceed 10 per inch. As character set “Arial” should be used.

If you use other fonts than Arial – what is not recommended – the type set must be enclosed in your PDF-file. Otherwise the layout of your paper is not predictable and will differ from what you expect.

The first page must start with a field in which centered the title of the work, the name(s) of the author(s) and the affiliation(s) are given. This field must have the diameters 65 x 160 mm.

You can download a template for Microsoft® Word from the webpage www.kerntechnik.info. Please do not forget to convert your file into PDF-format afterwards.

Tables and figures should be included in the text or appended at the end.

References should be indicated at the end of the text. It is recommended that compacts should not exceed four pages of text and up to six pages including tables and graphs.



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