

TECHNICAL PAPERS

FISSION REACTORS

- 1 Development of an Expert System for Failure Diagnosis of Primary Side Systems / *Se-Woo Cheon, Han-Gon Kim, Wan-Joo Kim, Bok-Ki Min, Soon-Heung Chang, Hak-Yeong Chung*
- 16 A Technique for the Selection of the Fuel Pin Diameter for a Uranium/Zirconium Alloy-Fueled Pressurized Water Reactor / *Dale B. Lancaster, Robert L. Marsh, Daniel B. Bullen, Holger Pfeifer, C. Steve Erwin, Alan E. Levin*
- 27 A Two-Step Method for Developing a Control Rod Program for Boiling Water Reactors / *Mehmet S. Taner, Samuel H. Levine, Ming-Yuan Hsiao*
- 39 Framework for Computer-Aided Systems Design / *Walter H. Esselman*
- 52 On-Line Test of Signal Validation Software on the LOBI-MOD2 Facility in Ispra, Italy / *Johannes Prock, Eggert Ohlmer, Michael Labeit*

NUCLEAR REACTOR SAFETY

- 63 On-Line Radioiodine Measurement Using Hot Cell Effluent Gases of a Radiopharmaceutical Production Facility / *Byung S. Lee, William A. Jester, Joseph M. Olynyk*
- 71 Chemical Behavior of Radioiodine in Boiling Water Reactor Systems II: Effects of Hydrogen Water Chemistry / *Chien C. Lin*
- 79 Nonlinear Identification of Process Dynamics Using Neural Networks / *Alexander G. Parlos, Amir F. Atiya, Kil T. Chong, Wei K. Tsai*

REACTOR SAFETY

- 97 Hydrogen Generation Behavior in the LOFT FP-2 and Other Experiments: Comparative Assessment for Mitigated Severe Accident Conditions / *August W. Cronenberg*

HEAT TRANSFER AND FLUID FLOW

- 113 Analysis of Counterpart Tests Performed in Boiling Water Reactor Experimental Simulators / *Roberto Bovalini, Francesco D'Auria, Antonio De Varti, Piero Maugeri, Marino Mazzini*

NUCLEAR CRITICALITY SAFETY

- 131 Active Neutron Multiplication Method for Fuel Lattices in Water / *Makoto Ueda, Shigeto Kikuchi, Hironori Kumanomido, Takeshi Seino*

ON THIS COVER

This month's cover is taken from Fig. 3 of the paper by Parlos et al., which models recurrent multilayer perceptron architecture.