

SAFIR2014 projects by research area in 2013

1. Man, organisation and society		
MANSCU	Managing safety culture throughout the lifecycle of nuclear plants	Pia Oedewald, VTT
SAFEX2014	Sustainable and future oriented expertise	Eerikki Mäki, Aalto
SISIANS	Signalled and silenced aspects aspects of nuclear safety	Marja Ylönen, Jyväskylä Univ.
2. Automation and control room		
CORSICA	Coverage and rationality of the software I&C safety assurance	Risto Nevalainen, FiSMA
HACAS	Human-automation collaboration in incident and accident situations	Jari Laarni, VTT
SARANA	Safety evaluation and reliability analysis of nuclear automation	Janne Valkonen, VTT
SAREMAN	Safety requirements specification and management in nuclear power plants	Teemu Tommila, VTT
IFAPROBE	Identification of fault situations propagating between different systems and disciplines	Nikolaos Papakonstantinou, Aalto
3. Fuel research and reactor analysis		
CRISTAL	Criticality safety and transport methods in reactor analysis	Karin Rantamäki, VTT
KOURA	Three-dimensional reactor analyses	Elina Syrjälahti, VTT
KÄÄRME	Development of Finnish Monte Carlo reactor physics code	Jaakko Leppänen, VTT
NEPAL	Neutronics, nuclear fuel and burnup	Jarmo Ala-Heikkilä, Aalto
PALAMA	Extensive fuel modelling	Ville Tulkki, VTT
4. Thermal hydraulics		
ESA	Enhancement of safety evaluation tools	Ismo Karppinen, VTT
EXCOP	Experimental studies on containment phenomena	Markku Puustinen, LUT
NUFOAM	OpenFOAM CFD-solver for nuclear safety related flow simulations	Timo Pättikangas, VTT
NUMPOOL	Numerical modelling of condensation pool	Timo Pättikangas, VTT
PAX	PWR PACTEL experiments	Vesa Riikonen, LUT
SGEN	Modelling of pressure transients in steam generators	Timo Pättikangas, VTT
UBEA	Uncertainty evaluation for best estimate analyses	Joona Kurki, VTT
SPEFU	Thermal hydraulics and fuel integrity in spent fuel dry cask interim storage facility	Risto Huhtanen, VTT
5. Severe accidents		
COOLOCE-E	Core debris coolability and environmental consequence analysis	Eveliina Takasuo, VTT
FISKE	Chemistry of fission products	Tommi Kekki, VTT
TERMOSAN	Thermal hydraulics of severe accidents	Tuomo Sevón, VTT
TRAFI	Transport and chemistry of fission products	Teemu Kärkelä, VTT
VESPA	Reactor vessel failures, vapour explosions and spent fuel pool accidents	Niina Könönen, VTT
PCCS	Passive Containment Cooling System tests	Juhani Vihavainen, LUT
6. Structural safety of reactor circuits		
ENVIS	Environmental influence on cracking susceptibility and ageing of nuclear materials	Ulla Ehrnstén, VTT
FAR	Fracture assessment of reactor circuit	Päivi Karjalainen-Roikonen, VTT
MAKOMON	Monitoring of the structural integrity of materials and components in reactor circuit	Tarja Jäppinen, VTT
RAIPSYS	RI-ISI analyses and inspection reliability of piping systems	Otso Cronvall, VTT
SURVIVE	Advanced surveillance technique and embrittlement modelling	Matti Valo, VTT
WAPA	Water chemistry and plant operating reliability	Timo Saario, VTT
FRESH	Fatigue affected by residual stresses, environment and thermal fluctuations	Michael Chauhan, VTT
RICO	Heavy fouling and corrosion risks in the cooling water systems of NPPs and methods for their mitigation	Saija Väisänen, VTT
7. Construction safety		
IMPACT2014	Impact 2014	Ilkka Hakola, VTT
MANAGE	Aging management of concrete structures in nuclear power plants	Miguel Ferreira, VTT
SMASH	Structural mechanics analyses of soft and hard missiles	Arja Saarenheimo, VTT
SESA	Seismic safety of nuclear power plants. Targets for research and education	Ludovic Fülöp, VTT
8. Probabilistic risk analysis (PRA)		
EXWE	Extreme weather and nuclear power plants	Ari Venäläinen, FMI
LARGO	Risk assessment of large fire loads	Simo Hostikka, VTT
PRADA	PRA development and application	Ilkka Karanta, VTT
FINPSA-TRANSFER	FinPSA knowledge transfer	Teemu Mätäsniemi, VTT
9. Development of research infrastructure		
ELAINE	Enhancement of Lappeenranta instrumentation of nuclear safety experiments	Arto Ylönen, LUT
REHOT	Renewal of hot cell infrastructure	Wade Karlsen, VTT