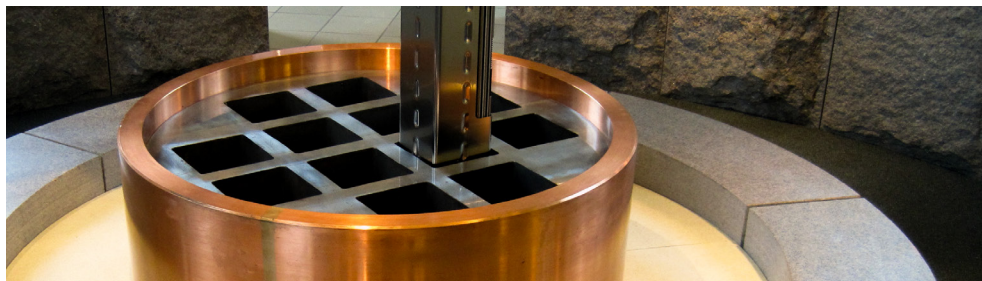


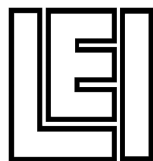
International cooperation

YOU MAY KNOW US FROM FP7, HORIZON 2020 AND IAEA RESEARCH PROJECTS



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LITHUANIAN
ENERGY
INSTITUTE

NUCLEAR AND THERMAL ENGINEERING

NUCLEAR ENGINEERING
LABORATORY

Areas of research

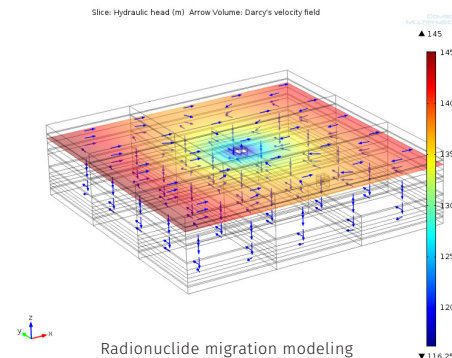
- SAFETY OF SPENT NUCLEAR FUEL (SNF) MANAGEMENT: MODELLING OF FUEL CHARACTERISTICS, SAFETY AND ENVIRONMENTAL IMPACT ASSESSMENT OF STORAGE AND DISPOSAL FACILITIES, NORMATIVE AND LEGISLATIVE BASE;
- SAFETY OF RADIOACTIVE WASTE MANAGEMENT: SAFETY AND ENVIRONMENTAL IMPACT ASSESSMENT OF TREATMENT TECHNOLOGIES AND STORAGE AND DISPOSAL FACILITIES, NORMATIVE AND LEGISLATIVE BASE;
- INVESTIGATION OF THERMAL PROCESSES FOR NUCLEAR AND NON-NUCLEAR APPLICATIONS: EXPERIMENTAL AND NUMERICAL, FLUE GAS CLEANING, HEAT RECOVERY;
- EVALUATION OF DIFFERENT FACTORS RELATED TO DECOMMISSIONING OF NUCLEAR POWER PLANTS: PLANNING AND COST OF DECOMMISSIONING AND DISMANTLING; RADIOLOGICAL CHARACTERIZATION OF THE AREA, BUILDINGS, SYSTEMS AND EQUIPMENT; SAFETY AND ENVIRONMENTAL IMPACT ASSESSMENT OF INDIVIDUAL FACILITIES; NORMATIVE AND LEGISLATIVE BASE;
- ASSESSMENT OF FIRE HAZARD AT NUCLEAR POWER PLANTS AND OTHER INDUSTRIAL PLANTS;
- RESEARCH RELATED TO CONSTRUCTION OF NEW NUCLEAR POWER PLANT IN LITHUANIA.

Project expertise

FOR SCIENTIFIC RESEARCH AND DEVELOPMENT:

OUR EXPERTISE FOR IMPLEMENTATION PROJECTS

- Safety assessment;
- Environmental impact assessment;
- Decommissioning-related assessment;
- Heat transfer in single and two-phase flows;
- Flue gas cleaning, heat recovery.



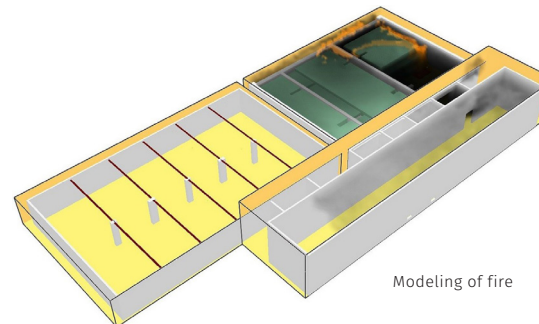
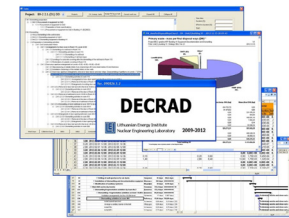
IMPLEMENTATION PROJECT PORTFOLIO:

- PROJECT "PREPARATION OF THE SAR, EIA AND SUPPORT FOR THE LICENSING OF THE SNF STORAGE FACILITY WITHIN THE IGNALINA B1 PROJECT";
 - PROJECT "DESIGN AND CONSTRUCTION OF NEW SOLID RADIOACTIVE WASTE MANAGEMENT AND STORAGE FACILITIES (SWMSF)";
 - THE PROJECT "NEAR-SURFACE REPOSITORY FOR LOW AND INTERMEDIATE LEVEL SHORT-LIVED RADIOACTIVE WASTE (DESIGN)";
 - PROJECT "DEVELOPMENT OF INNOVATIVE THERMAL DECOMPOSITION TECHNOLOGY AND ITS APPLICATION FOR SEWAGE SLUDGE UTILIZATION";
 - PROJECT "INPP BUILDING V1 EQUIPMENT DISMANTLING AND DECONTAMINATION DESIGN DEVELOPMENT";
 - PROJECT "INPP BUILDING 117/1 D&D PROJECT DEVELOPMENT";
 - PROJECT "LANDFILL FACILITY FOR SHORT-LIVED VERY LOW LEVEL WASTE";
 - PROJECT "PREPARATION OF THE DECOMMISSIONING PLAN FOR MAIŠIAGALA RADIOACTIVE WASTE STORAGE FACILITY AND ENVIRONMENTAL IMPACT ASSESSMENT OF PLANNED ECONOMIC ACTIVITY";
- ETC.

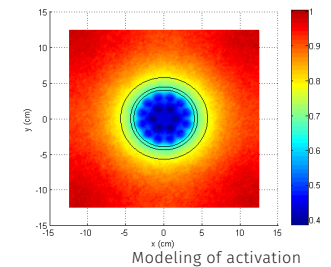
Tools we work with

THE FOLLOWING SOFTWARE IS USED FOR INVESTIGATION:

- **MicroSkyshine, MicroShield, Scale, MCNP** (for investigation of used nuclear fuel and its storage equipment characteristics);
- **PetraSim, GoldSim, COMSOL, Amber, Gardenia, ISC Aermod View, EQ3/6, PHREEQC 2, CODE_BRIGH** (for investigation of the characteristics of radioactive waste and its treatment, storage equipment and disposal facilities);
- **PyroSim, CFAST6** (for investigation of fire in nuclear facilities and industrial plants);
- **ANSYS, COMSOL** (for investigation of heat transfer and flow hydrodynamics in various installations);
- **DECRAD** software developed by the Laboratory for analysis of the dismantling process of various nuclear facilities.



Modeling of fire



OUR MAIN CLIENTS



IGNALINA NUCLEAR POWER PLANT



VĮ Radioaktyviųjų atliekų tvarkymo agentūra



"АЕЦ КОЗЛОДУЙ" ЕАД



Westinghouse

IDOM



cavendish nuclear



PARTNERS FOR IMPLEMENTATION PROJECTS