



CONFERENCE PROGRAMME

04 October 2015 Sunday		
15:30-20:30 Registration		
05 October 2015 Monday		
08:00-09:00 Registration		
Opening Session		
09:00 - 09:05	Prof. Dr. H. Mehmet Şahin (Chairman)	
09:05 - 09:10	Prof. Dr. Sümer Şahin (Honorary Chairman)	
09:10 - 09:15	Prof. Dr. José M. Martínez-Val (ICENES Chairman)	
Plenary Session 1 Keynote (Hall A) Chairman: José M. Martínez-Val		
09:15 - 09:55	Role of nuclear energy in the future energy mix and needs for R&D and innovation in closing the fuel cycle	Prof. Dr. Hamid Aït Abderrahim
09:55 - 10:35	Development Strategy & Progress of China LEAD-based Reactor (CLEAR) for Fission and Fusion Applications	Prof. Dr. Yican Wu
10:35 - 10:50	COFFEE BREAK	
Parallel Session 1 (Hall A) "GEN-IV Reactors-1" Chairman: Andrei Rineiski		
10:50 - 11:10	Conceptual Design of Lead Cooled Reactor for Hydrogen Production	Minghuang Wang, Hua Huang, Chao Lian, Xiang Ji, Jieqiong Jiang, Yican Wu*
11:10 - 11:30	A Conceptual Design Study of New Ultra-Long-Life Sodium-Cooled Cores	Ser Gi Hong*, Hae Ri Hyun
11:30 - 11:50	Regenerative Brayton Cycles for Flexible Operation of Gas-cooled Reactors	Mireia Piera*, Maria-Jose Montes, Antonio Rovira, Jose Martinez-Val
11:50 - 12:10	Thorium Utilization in Existing and Advanced Reactor Types	V. Jagannathan*, Arvind Mathur, Suhail Khan
Parallel Session 1 (Hall B) "Safety 1" Chairman: Michitsugu Mori		
10:50 - 11:10	Release of Radioactive Materials to the Primary Loop of BUSHEHR Nuclear Reactor at Severe Accident Conditions	Ahmad Pirouzmand*, Ali Ghasemi
11:10 - 11:30	Qualification Test of Pressure Relief Valve for Nuclear Power Plants	SangKyo Kim*, Jae Hyoung Kim, Tae Hyun Lee, Kyung Ha Ryu, Sang Hyuk Lee
11:30 - 11:50	A Framework for Qualifications of Equipment Survivability under the Severe Accident Condition	Kyung Ha Ryu*, Tae Hyun Lee, Sang Hyuk Lee, Sang Kyo Kim, Jae Hyoung Kim

11:50 - 12:10	Development and Experimental Validation of Super Monte Carlo Simulation Program	Jing Song*, Lijuan Hao, Huaqing Zheng; Mengyun Chen, Shengpeng Yu, Tao He, Jun Zou, Pengcheng Long, Liqin Hu, Taosheng Li, Yongfeng Wang, Gang Song, Chao Liu, Jieqiong Jiang, Yican Wu
12:10 - 14:00	CONFERENCE PHOTO-1 and LUNCH	
Parallel Session 2 (Hall A) "GEN-IV Reactors-2" Chairman: Xue-Nong Chen		
14:00 - 14:20	Comparative Studies on Plutonium Utilization in HTTR with Helium and Carbon Dioxide Gas Coolants	Abdul Waris, Puguh Andik Prastyo, Syeilendra Pramuditya, Dwi Irwanto, Hiroshi Sekimoto
14:20 - 14:40	Analysis of High Temperature Engineering Test Reactor Physics Experiments By Monte Carlo Method	Chang Joon Jeong*, Hyun Chul Lee
14:40 - 15:00	Numerical Analysis of Thermo-Hydraulic Performance of FLiBe Flowing Through a Louvered-Fin CHE of a MSR Primary Loop	Bahadır Doğan, L. Berrin Erbay
15:00 - 15:20	Conceptual Design of a Lead-bismuth Cooled Small Modular Reactor	Minghuang Wang*, Chao Lian, Jieqiong Jiang, Yican Wu
15:20 - 15:40	Safety Aspect of Void Reactivity and Fuel Conversion Potential of Heavy Water Cooled Thorium Reactor	Sidik Permana, Abdul Waris, Zaki, Hiroshi Sekimoto
Parallel Session 2 (Hall B) "Fusion 1" Chairman: Mohamed Sawan		
14:00 - 14:20	FBX-4: Hot Compress in Free Boundary Plasma Experiment	Masaru Irie
14:20 - 14:40	FNSF: Next Facility to Qualify/Validate Nuclear technologies for U.S. Demo	Laila El-Guebaly*, Siegfried Malang, Arthur Rowcliffe, Lester Waganer
14:40 - 15:00	Thermal analyses of a helium cooled solid breeder blanket for DEMO reactor	Guangming Zhou*, Francisco Hernández, Lorenzo Boccaccini, Hongli Chen, Minyou Ye
15:00 - 15:20	Analysis of Tritium Extraction System for Lithium-Lead EU Demo Blanket Designs Using Permeator Against Vacuum	Laura Savoldi*, Roberto Zanino, Marco Utili
15:20 - 15:40	Investigation of Tritium Breeding Ratio Using Different Coolant Material in a Fusion-Fission Hybrid Reactor	H. Mehmet Şahin, Güven Tunç, Necmettin Şahin
15:40 - 16:00	COFFEE BREAK	
Parallel Session 3 (Hall A) "Accelerator Driven Systems 1" Chairman: Claubia Pereira		
16:00 - 16:20	Reactivity Effects in Accelerator Driven Small Reactors	Jose Martinez-Val*, Emilio Minguez, Alberto Abanades
16:20 - 16:40	Asymptotic Radial Fuel Shuffling Mode For Accelerator Driven Transmuter	Xue-Nong Chen*, Andrei Rineiski
16:40 - 17:00	Status and Outlook of the 17 MeV Injector for MYRRHA	Dominik Maeder*, Holger Podlech, Alwin Schempp, Markus Vossberg, C. Zhang
17:00 - 17:20	Studies of MYRRHA Using Thorium Fuel	Roger Barlow*, Edouard Malambu, Hamid Ait Abderrahim, Gert Van den Eynde
17:20 - 17:40	Radiation Source Terms of MYRRHA Reactor Components and Equipment	Yurdunaz Celik*, Alexey Stankovskiy, Engelen Jeroen, Gert Van den Eynde

Parallel Session 3 (Hall B) “Renewable Energy Technologies 1” Chairman: Nikola Lorenzin		
16:00 - 16:20	Developing Local and Renewable Energy for Sustainable Applications	Dahbi Abdeldjalil, Harrouz Abdelkader*
16:20 - 16:40	Performance of Small Scale Wind Turbines at Incek Region - Ankara	Levent Bilir*, Şaziye Balku, Ayhan Albostan
16:40 - 17:00	The contribution of wind-hydro pumped storage systems in meeting Lebanon’s electricity demand	Ghida AL Zohbi*, Philippe Bouillard, Patrick Hendrick, Renier Christian
17:00 - 17:20	Evaluation of Flow Accelerated Corrosion for a Typical Nuclear Power Plant Gate Valve by Turbulent Flow Simulation	Behnam Behzadinejad, Mohammadreza Nematollahi, Amirhossein Kamalinia, Seyedfazel Ghaziardakani
19:00 - 20:00	Conference Reception	
06 October 2015 Tuesday		
Parallel Session 4 (Hall A) “Fusion 2” Chairman: Laila El-Guebaly		
09:00 - 09:20	Fusion-Fission Hybrid Systems Transmutation Comparison	Claudia Pereira*, Carlos Velasquez, Maria Auxiliadora Veloso, Antonella Costa, Graiciany Barros
09:20 - 09:40	Advanced Computation Tools for Fusion Neutronics	Mohamed Sawan*, Paul Wilson, Andrew Davis
09:40 - 10:00	Development of High Intensity D-T Fusion Neutron Generator (HINEG)	Yican Wu*, Gang Song, Yongfeng Wang, Taosheng Li, Chao Liu, Jieqiong Jiang
10:00 - 10:20	Progress of Concept Design on China Fusion Engineering Test Reactor (CFETR)	Minyou Ye
Parallel Session 4 (Hall B) “Fission Reactors 1” Chairman: Werner Maschek		
09:00 - 09:20	Multi-Channel Thermal Hydraulic Analysis Code Development	Mohammad Albaty*, Khalifeh AbuSaleem
09:20 - 09:40	Thermalhydraulic Behavior Analysis of Smart Fuel Assembly During Partial Flow Blockage By Debris	Mohammad Nazififard*, Kune Y. Suh
09:40 - 10:00	Multi element neutron activation analysis precision with K0-NAA compared to INAA method in Esfahan MNSR research reactor	Ahmadi, Masoud
10:00 - 10:20	An Experimental testing of coolant flow rate and velocity in the Core of Nigeria Research Reactor-1 (NIRR-1)	Arome Sunday Agbo*
10:20 - 10:40	COFFEE BREAK	
Plenary Session 2 (Hall A) “Accelerator Driven Systems 2- MYRRHA” Chairman: Yican Wu		
10:40 – 11:00	Challenges for the MYRRHA Driver Accelerator	Dirk Vandeplassche*, Luis Medeiros Romão, Jean-Luc Biarrotte
11:00 – 11:20	Pre-Licensing Framework for MYRRHA	Robin Klein Meulekamp*, Nourdine Hakimi
11:20 – 11:40	Recent Developments in the Primary and Building Design of the MYRRHA Facility	Didier De Bruyn*, Rafaël Fernandez, Jeroen Engelen

11:40 – 12:00	R&D on Heavy Liquid Metal Technology in Support of MYRRHA	Graham Kennedy*, Katrien Van Tichelen, Alexander Aerts, Marc Dierckx, Marc Schyns
12:00 – 12:20	Small Scale Experiments of Sloshing for the Seismic Safety of MYRRHA	Konstantinos Myrillas*, Philippe Planquart, Jean-Marie Buchlin, Marc Schyns
12:20 – 14:00	CONFERENCE PHOTO-2 and LUNCH	
Parallel Session 5 (Hall A) “Fission Reactors 2” Chairman: V. Jagannathan		
14:00 - 14:20	Comparative Studies On Plutonium Utilization in Small Modular Reactor With Uranium and Thorium Oxide Fuels	Abdul Waris, Zaki Su'ud, Sidik Permana, Haci Sahin, Sümer Şahin
14:20 - 14:40	Usage of GANEX and UREX+ Reprocessed Fuels in ADS	Graiciany Barros, Carlos Velasquez, Claubia Pereira, Maria Auxiliadora Veloso, Antonella Costa
14:40 - 15:00	Accident Analysis of Tungsten Target Coupled with ADS Core	Tianji Peng*, Zhiwei Zhou
15:00 - 15:20	Reactor Core and Actinide Production Evaluation based on Different Loading Material of Recycled Spent Nuclear Fuel of LWR in FBR	Sidik Permana, Geby Saputra, Mitsutoshi Suzuki, Zaki Suud, Masaki Saito
15:20 – 15:40	Reactivity and Kinetic Parameter Evolutions to Core Height and Boron Concentration of Fixed Bed Nuclear Reactor	Thong Ha Van*, Thi Nguyet Minh Do, Hoang Trung Huy, Sefidvash Farhang
Parallel Session 5 (Hall B) “Fusion 3” Chairman: Didier De Bruyn		
14:00 - 14:20	The Effect of Plasma Profiles on Alpha Heating in Ignition Condition	Behzad Khosrowpour*, Nora Nassiri Mofakham
14:20 - 14:40	Experimental Study on Mather-Type Plasma Focus Device IR-MPF-100	Amir Raeisdana*, Asghar Sadigzadeh, Ammar Ghorbani, Abolfazl Salehizadeh
14:40 - 15:00	Neutron source schemes on the basis of GDT and GDMT mirrors for nuclear technology applications	Dmitry Yurov*, Sergey Murakhtin, Vadim Prikhodko
15:00 - 15:20	Fusion Energy: Implosions at the National Ignition Facility & Magnetic Fusion with the Princeton Field-Reversed Configuration Device	David Farley
15:20 – 15:40	Numerical investigation of liquid metal magneto-convection in a squared enclosure based on Open FOAM	Feng, Jingchao
15:40 - 16:00	COFFEE BREAK	
Parallel Session 6 (Hall A) “Fission Reactors 3” Chairman: Zaki Su'ud		
16:00 - 16:20	Monte Carlo Calculations of a CANDU reactor with reactor grade plutonium/thorium mixed fuel	Sümer Şahin*, Başar Şarer, Yurdunaz Çelik
16:20 - 16:40	Nuclear Safety and Security Interfaces Management for NPPs	Lucian Biro
16:40 - 17:00	Augmented Heat Transport of Sphere-Packed Pipe for Flibe Blanket	Mohammad Nazifard*

17:00 - 17:20	Capability of Melcor 1.8.6 in Modeling DCH Phenomenon	Kamal Hadad*, Toraj Nazari
Parallel Session 6 (Hall B) "Renewable Energy Technologies 2" Chairman: Harrouz Abdelkader		
16:00 - 16:20	Simulation of Hybrid Thermal Installations	Aleksandar Georgiev, H. Mehmet Şahin, Rumen Popov, Kurtuluş Değer, Nadezhda Vassilieva, Emil Toshkov
16:20 - 16:40	A Review on the Application of Liquid Metals as Heat Transfer Fluid in Concentrated Solar Power Technologies	Nikola Lorenzin*, Alberto Abanades
16:40 - 17:00	Analysis of Seawater Fouling Composition and Effect of Heat Flux, Temperature and Flow Velocity	Dazhang Yang
17:00 - 17:20	Hydrogeological and Geothermal Study of the Region Oued-Righ (Ouargla)	Mebrouk BENZIADA
17:20 - 17:40	Numerical Investigation of Basin Geometries for Vortex Generation in a Gravitational Water Vortex Power Plant	Nauman Khan, Mujahid Naseem, Taqi Cheema, Javed Chattha
07 October 2015 Wednesday		
Plenary Session 3 (Hall A) "Safety 2" Chairman: Zhibin Sun		
09:00 - 09:20	Issues of Safety and Standardization for Severe Accident of Nuclear Power Plants	Michitsugu Mori
09:20 - 09:40	Bell-Plesset Instability Analysis for an Inward Centralized Sloshing	Rui Li
09:40 - 10:00	Safety Investigations of Optimized Sodium-Cooled Fast Reactors Loaded with Sphere-PAC Fuels	Werner Maschek
10:00 - 10:20	Experimental and Numerical Investigations on Circumferential Temperature Gradient over Pressure Tube under LOCA	Ashwini Kumar Yadav*, Ravi Kumar, Akhilesh Gupta, P. Majumdar, Barun Chatterjee, Deb Mukhopadhyay
10:20 - 10:40	COFFEE BREAK	
Parallel Session 7 (Hall A) "Fission & Fusion" Chairman: Minghuang WANG		
10:40 - 11:00	Evaluation of the Adequacy of Lithium Resources for Fusion Reactor with the Aspect of Li-ion Battery-Driven Vehicles	Chao Wang*, Xiang Ji, Yongliang Wang, Muiyi Ni, Jieqiong Jiang, Yican Wu
11:00 - 11:20	Correlation between the Probability of Fusion on the Lattice Surface and within Micro-cracks at Room Temperature and Low Energies	Fulvio Frisone
11:20 - 11:40	CFX Study of Flow Accelerated Corrosion via Mass Transfer Coefficient Calculation in a Double Elbow	Ali Erfaninia, Mohammadreza Nematollahi
11:40 - 12:00	Numerical Study of Mass Transfer Coefficient in a T- Junction	Ali Erfaninia, Mohammadreza Nematollahi
12:00 - 12:20	Assessment of Thermal Hydraulic Parameters of VVER-1000 During Transient Conditions of Reactivity Insertion	Behnam Behzadinejad, Mollasadra St., Somayeh Bagheri, Mohammadreza Nematollahi, Farshad Faghihi
Parallel Session 7 (Hall B) "Renewable Energy Technologies 3" Chairman: Javed Ahmad Chattha		
10:40 - 11:00	Sizing and Controlling by DRFOC a Photovoltaic with Motor-Compressor in the Sahara	Moulay-Idriss Chergui*

11:00 - 11:20	Performance Assessment of a PV Based Grid Connected Solar Plant	Omar Mohammed Benaissa*, Rafik Sayah, Samir Hadjeri
11:20 - 11:40	Effect of Swirl Number on Temperature Levels of Hydrogen-Containing Fuels in a Combustor	Mustafa İlbaşı*, Serhat Karyeyen, İlker Yılmaz
11:40 - 12:00	Vortex Generation in a Gravitational Water Vortex Power-plant	Taqi Ahmad Cheema*, Javed Ahmad Chattha
12:00 - 12:20	Performance analyses of parabolic trough/parabolic dish solar thermal power plant for hydrogen production using nano-fluids	M. Abid, T. A. H. Ratlamwala, U. Atikol
12:20 - 14:00	CONFERENCE PHOTO-3 and LUNCH	
14:00 -	EXCURSION, BOAT TOUR ON BOSPHOROUS and GALA DINNER	
08 October 2015 Thursday		
Parallel Session 8 (Hall A) "GEN-IV Reactors-3" Chairman: Minyou Ye		
09:00 - 09:20	Modified Lorentz-Bertholet Formula for Accurate Prediction of Liquid-Metal-Nuclear-Material Corrosion	Zaki Su'ud, Artoto Arkundato
09:20 - 09:40	HTR Steady State And Transient Thermal Analyses	Antonella Costa*, Maria Scari, Claubia Pereira, Carlos Velasquez, Maria Auxiliadora Veloso
09:40 - 10:00	Conceptual design of small scale natural circulation lead cooled fast reactor SNCLFR-100	Hongli Chen, Zhao Chen, Chong Chen, Xilin Zhang, Haoran Zhang, Pengcheng Zhao, Kangli Shi, Shuzhou Li, Jingchao Feng, Qin Zeng
10:00 - 10:20	Calculation of maximum pressure on containment surface in accident LOCA by using numerical calculation and experimental method in reactor VVER-1000	Zahra Tabadar, Masoud Jabary, Kamal Hadad, Mohammadreza Nematollahi, Gholamreza Ansarifar
Parallel Session 8 (Hall B) "VVER" Chairman: Jieqiong JIANG		
09:00 - 09:20	Study of the Flow at the Upper Plenum of a Scaled VHTR Using PTV	Anas Alwafi*, Jae-Hyung Park, Saya Lee, Carlos Estrada-Perez, N. K. Anand, Yassin Hassan
09:20 - 09:40	Thermal-Hydraulic Analysis of Lbloca with ECCS Pump Suction Blockage For The Bushehr 'S VVER-1000 Nuclear Power Plant	Ahmad Pirouzmand, Hoda Sadeghpour
09:40 - 10:00	Calculation of Control Rod Group's Worth Calculation of VVER-1000 Reactor Core by MCNPX Code and Comparison with Experimental Data	K. Hadad, M. R. Nematollahi, Z. Tabadar, G. R. Ansarifar, M. Jabary
10:00 - 10:20	Thermal-Hydraulic Analysis of a VVER Nuclear Reactor	Adem Acir, Sinem Key Uzun
10:20 - 10:40	COFFEE BREAK	
Parallel Session 9 (Hall A) "Fission Reactors 4" Chairman: Chao LIU		
10:40 - 11:00	Use of Tungsten Single Crystals to Increase Nuclear Reactors Structural Elements Properties	Solntseva Ekaterina, Taubin M. L., Bochkov N. A., Solntsev V. A., Yaskolko A. A.
11:00 - 11:20	Neutron Dynamics and Verification Using MATLAB Toolbox Simulink	Kamal Hadad, Samira Sarshough

11:20 - 11:40	Characteristics of Flow Field and Pressure Fluctuation in Complex Turbulent Flow in the Third Elbow of a Triple Elbow Piping with Small Curvature Radius in Three-dimensional Layout	Shinji Ebara*, Hiroyuki Takamura, Hidetoshi Hashizume, Hidemasa Yamano
11:40 - 12:00	Evaluation of Influence of the Inlet Swirling Flow on the Flow Field in a Triple Elbow System	Jun Mizutani*, Shinji Ebara, Hidetoshi Hashizume
Parallel Session 9 (Hall B) "GEN-IV Reactors-4" Chairman: Antonella Costa		
10:40 - 11:00	Conceptual Design of An Innovative Sodium-cooled Fast Reactor (ISFR) with Novel Passive Safety Devices	Donny Hartanto*, Yonghee Kim
11:00 - 11:20	Safety Aspect of Void Reactivity Coefficient and Fuel Conversion Potential of Heavy Water Cooled Thorium Reactor	Sidik Permana, Abdul Waris, Zaki Su'ud, Hiroshi Sekimoto
11:20 - 11:40	Design Study of Small Long Life Pb-208 Cooled Fast Power Reactors	Zaki Su'ud, Nina Widiawati, Abdul Waris
11:40 - 12:00	Full-Core Coupled Neutronic/Thermal-Hydraulic Modeling of GEN-IV LMFBR	Roberto Zanino*
12:00 - 12:30	Planery Session 4 Closing Talk and Next ICENES_2017 (Prof. Dr. José M. Martínez-Val & Prof. Dr. Sümer Şahin & Prof. Dr. H. Mehmet Şahin)	

POSTER SESSIONS (*)

6-7 October 2015

6-7 October 2015		
P1	Atmospheric Dispersion Calculation of Radioactive Releases from Tehran Research Reactor Using HYSPLIT Model	Ahmad Pirouzmand*, Peyman Dehghani
P2	Particle Trajectories and Energy Distribution at Low Magnetic Field Case from a New IEC Fusion Device Model	Erol Kurt*
P3	A New Permanent Magnet Generator (PMG) with the Axial and Radial Flux Morphology	Halil Gör*, Erol Kurt
P4	Structural analyses of a HCPB blanket for DEMO reactor	Guangming Zhou*, Francisco Hernández, Lorenzo Boccaccini, Hongli Chen, Minyou Ye
P5	An Innovative Passive Heat Removal System for a Typical VVER Reactor in the Case of Station Blackout Accident	Mohammadreza Nematollahi, Ali Erfaninia, Mohammad Hossain Miza Mohamadzadeh
P6	GAMMA-RAY Dose Buildup Factor Calculation for Serpentine and Stainless Steel Concrete Double-Layered Shields	Mohammadreza Nematollahi, Ali Erfaninia, A. Sedghkerdar, Amin Aminian
P7	Thermal-hydraulic Behavior of a Typical VVER-1000 Core at different void model	Behnam Behzadinejad, Mollasadra St., Somayeh Bagheri, Mohammad Reza Nematollahi, Farshad Faghihi
P8	Design of cold neutron source for a typical research reactor	Farshad Faghihi
P9	Dynamical responses of the AP-1000 based on RPM	Farshad Faghihi
P10	Sub-channel thermal-hydraulics analysis of the VVER-1000 fuel bundle	Farshad Faghihi

P11	Effects Of Moisture On Thermal Conductivity Of The Lightweight Construction Material	Drifa Belkharchouche
P12	Performance Improvement of Adsorption Solar Cooling System	Chekirou Wassila, Boukheit Nahman, Karaali Ahcen
P13	Heat Recovery Process in an Adsorption Refrigeration Machine	Chekirou Wassila, Boukheit Nahman, Karaali Ahcen
P14	Producing tritium by irradiating lithium orthosilicate targets in a fission research reactor	Mehdi Hashemi-Tilehnoee*, Zahra Tabadar
P15	Moderation and Shielding optimization for a 252Cf based Prompt Gamma Neutron Activation Analyzer system	Mohammadreza Nematollahi, Kamal Hadad, Behnam Behzadinejad, Mollasadra St., Hoda Sadeghpour
P16	Sensitivity Analysis for F-SLOCA Induced CDF Variation on the Conditional Probability of Spurious Operation of Pressurizer SDVs due to Fire Induced Hot Short	Mohammadreza Nematollahi, Shahabeddin Kamyab, Behnam Behzadinejad
P17	Electromagnetic Design of a New Axial Flux Generator	Erol Kurt, Umut Doner, Halil Gor
P18	Hydrogeological and Geothermal Study	Mebrouk Benziada
P19	Energy and Exergy Analyses of a VVER Type Nuclear Power Plant	Erol Kurt, Rauf Terzi, Ibrahim Tükenmez
P20	Face-On Radiography Experiment of Isolated Defects on Capsules at the National Ignition Facility	David Farley

(*) - Since the Scientific Committee assigned for the poster review may have questions and Suggestions, please stand aside your poster(s).

- Please do not forget to get back your poster(s) at the end of assigned day.

- The preferred dimension for each poster should be 90 cm height and 50 cm width as also stated in web-site of the conference.