CURRICULUM VITAE (12/2020)

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DATE OF BIRTH: AUGUST 15, 1965

PLACE OF BIRTH: HATINH, VIETNAM

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EDUCATION

1979-1982 :	SPECIAL SCHOOL FOR MATHEMATICS, VINH CITY PEDAGOGICAL UNIVERSITY, VIETNAM
1982-1983 :	FOREIGN LANGUAGE INSTITUTE, HANOI, VIETNAM (LEARNING RUSSIAN)
1983-1989 :	MOSCOW POWER ENERGY INSTITUTE (MPEI), GRADUATED IN 1989 AS THERMO-PHYSICS ENGINEER WITH HONOUR DIPLOMA (NUCLEAR POWER PLANTS AND EQUIPMENT SPECIALITY)
1994:	MASTER OF SCIENCE IN ENGINEERING (MOSCOW POWER ENERGY INSTITUTE, MOSCOW, RUSSIA)
2005-2009:	MASTER OF SCIENCE IN ENGINEERING (MOSCOW POWER ENERGY INSTITUTE, MOSCOW, RUSSIA) PHD STUDY, ROYAL INSTITUTE OF TECHNOLOGY (KTH), STOCKHOLM, SWEDEN

PLACES OF WORKS

1989-1990:	ENERGY CENTER – NOW CALLED INSTITUTE FOR ENERGY SCIENCE (VIETNAM NATIONAL INSTITUTE FOR SCIENCE AND TECHNOLOGY) HANOI, VIETNAM
1990-1991:	SOFTWARE COMPANY SOFTEX (NATIONAL INSTITUTE FOR TECHNOLOGY), HANOI, VIETNAM
1991-1992:	COTEC CORPORATION (VIETNAM NATIONAL INSTITUTE FOR SCIENCE, HOCHIMINH CITY BRANCH), HOCHIMINH CITY, VIETNAM
1992-2001:	INTERNATIONAL CENTER FOR SCIENTIFIC AND TECHNICAL INFORMATION (ICSTI) – SCIENTIFIC REPRESENTATIVE OF COTEC CORPORATION
2001-2002:	COTEC, HOCHIMINH CITY, VIETNAM
2002-2005:	INSTITUTE OF ENERGY – IE (ELECTRICITY OF VIETNAM, MINISTRY OF INDUSTRY), HANOI, VIETNAM
2005-2009:	NUCLEAR POWER SAFETY DIVISION (NPS), DEPARTMENT OF PHYSICS, ROYAL INSTITUTE OF TECHNOLOGY (KTH), STOCKHOLM, SWEDEN
2009-2012:	NUCLEAR POWER PLANTS DEPARTMENT, INSTITUTE OF ENERGY, MINISTRY OF INDUSTRY AND TRADE (MOIT), HANOI, VIETNAM (DEPUTY DIRECTOR OF THE DEPARTMENT)
2012- …	VIETNAM ATOMIC ENERGY INSTITUTE – VINATOM (PRESIDENT)

PARTICIPATION IN NATIONAL AND INTERNATIONAL PROJECTS

- Hydro Power Plant (HPP) Projects **Txak-Mo** (1992-1995) and Yaly (1994-1998) in South Vietnam;
- Power Transmission Line (PTL) 500 kV (1992-1995) in Vietnam;
- Pre-Feasibility Study (**Pre-FS**) on Introduction of the First Nuclear Power Plants in Vietnam (2002-2009);
- Accident Phenomena of Risk Importance **(APRI-6)** Project, 2006-2008, Nuclear Power Safety Division (NPS), Royal Institute of Technology (KTH), Sweden, founded by The Swedish Radiation Safety Authority – SSM;
- **APRI-7** Project, 2009-2011, NPS (KTH), Sweden;

- **APRI-8** Project, 2012-2014, NPS (KTH), Sweden;
- National Research Project (2014-2015): Study on Nuclear Technologies Proposed for **Ninh Thuan 1** and **Ninh Thuan 2** NPP Projects to Support Review of Basic Designs;
- IAEA Technical Cooperation (TC) Project 2016-2017 VIE9016 "Promoting Reactor Safety Development Programme" for Vietnam (Principal Investigator);
- IAEA Technical Cooperation (TC) Project 2018-2019 VIE9018 "Promoting Reactor Safety Development Programme" (Principal Investigator);
- IAEA Technical Cooperation (TC) Project 2020-2021 VIE1010 ("Promoting Reactor Safety Development Programme", Phase 3: "Enhancing and Expanding National Capability in Safety Analysis and Risk Assessment") -- Principal Investigator;
- Project of the Center for Nuclear Energy Science and Technology (**CNEST**) in Vietnam with a new research reactor (currently);
- Vietnam National Research Program KC.05/2016-2020 "**Energy Technology**" (The Director of the Program).

LIST OF PUBLICATION

[1] DOAN M.L., NGUYEN V.T., TRAN C.T., "An analysis of In-Vessel Melt Retention strategy for VVER-1000 considering the effect of torospherical lower head vessel", *Journal of Nuclear Engineering and Design*, **Vol. 371**, 110972, January 2021.

[2] NGUYEN T.H., LE B.T., TRAN C.T., MASAYUKI W., DO K., NGUYEN T.T., HOANG N., PHAM Q.M., TRAN H.M., NGUYEN V.T., DOAN T.T.T., MANIS K.J., LEE J.Y., RAJESH K.J., "Separation of thorium and uranium from xenotime leach solutions by solvent extraction using primary and tertiary amines", *Journal of Hydrometallurgy*, **Vol. 198**, 105506, October 2020.

[3] NGUYEN T.H., LE B.T., TRAN C.T., MASAYUKI W., HOANG N., DO K., NGUYEN T.T., NGUYEN V.T., NOBORU A., DOAN T.T.T., NGUYEN M.T., MANISH K.J., LEE J.Y., RAJESH K.J., "Optimization of sulfuric acid leaching of a Vietnamese rare earth concentrate", *Journal of Hydrometallurgy*, **Vol. 191**, 105195, November 2019.

[4] NGUYEN T.H., LE B.T., TRAN C.T., HOANG N., DO K., NGUYEN V.T., LE J.Y., RAJESH K.J., "Modeling the UO_2 ex-AUC pellet process and predicting the fuel rod temperature distribution under steady-state operating condition", *Journal of Nuclear Materials*, **Vol. 504**, pp.191-197, March 2018.

[5] C.T. TRAN, V.H. NGUYEN, M. TAHARA, Y. KOJIMA, R. HAMAZAKI, P. KUDINOV, "A Study on Transient Heat Transfer of the EU-ABWR External Core Catcher Using the Phase change Effective Convectivity Model", *Proceedings of the 15th International Topical Meeting on Nuclear Reactor Thermalhydraulics (NURETH-16)*, Chicago, USA, August 30 – September 04, 2015.

[6] V.T. NGUYEN, C.-H. SONG, C.T. TRAN, "CFD Prediction of Subcooled Boiling with Advanced Mechanistic Models of Interfacial Area Transport Equation", *Proceedings of the 15th International Topical Meeting on Nuclear Reactor Thermalhydraulics (NURETH-16)*, Chicago, USA, August 30 – September 04, 2015.

[7] P. KUDINOV, A. KARBOJIAN, C.T. TRAN, W. VILLANUEVA, "Agglomeration and size distribution of debris in DEFOR-A experiments with BiO3-WO3 corium simulant melt", *Journal of Nuclear Engineering and Design*, **Volume 263**, pp.284-295, October, 2013.

[8] A. GORONOVSKI, W. VILLANUEVA, C.T. TRAN, and P. KUDINOV, "The Effect of Internal Pressure and Debris Bed Thermal Properties on BWR Vessel Lower Head Failure Mode and Timing", *Proceedings of the 15th International Topical Meeting on Nuclear Reactor Thermalhydraulics (NURETH-15)*, Pisa, Italy, May 12-17, 2013.

[9] C. TORREGROSA, W. VILLANUEVA, C.T. TRAN, and P. KUDINOV, "Coupled 3D Thermo-Mechanical Analysis of a Nordic BWR Vessel Failure and Timing", *Proceedings of the 15th International Topical Meeting on Nuclear Reactor Thermalhydraulics (NURETH-15)*, Pisa, Italy, May 12-17, 2013.

[10] C.T. TRAN, P. KUDINOV, "The Effective Convectivity Model for Simulation of Molten Metal Layer Heat Transfer in a Boiling Water Reactor Lower Head", *Journal Science and Technology of Nuclear Installations*, **Volume 2013**, Article ID 231501, May 2013 *(doi:10.1155/2013/231501)*.

[11] W. VILLANUEVA, C.T. TRAN, and P. KUDINOV, "Coupled Thermo-Mechanical Creep Analysis of Boiling Water Reactor Pressure Vessel Lower Head", *Journal of Nuclear Engineering and Design*, **Volume 249**, pp.146-153, August, 2012.

[12] Ngoc Tuyen PHAN, Tuan Nghia NGUYEN, Chi Thanh TRAN, "Application of the Effective Convectivity Model for Melt Pool Heat Transfer Simulation in a VVER-1000 Reactor Lower Head", *Proceedings of the 9th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-9)*, Kaohsiung, Taiwan, September 9-13, 2012.

[13] Chi Thanh TRAN, Walter VILLANUEVA, and Pavel KUDINOV, "A Study on the Integral Effect of Corium Material Property on Melt Pool Heat Transfer in a Boiling Water Reactor", *Proceedings of the 9th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-9)*, Kaohsiung, Taiwan, September 9-13, 2012.

[14] Walter VILLANUEVA, Chi Thanh TRAN and Pavel KUDINOV, "Analysis of Instrumentation Guide Tube Failure in a BWR Lower Head", *Proceedings of the 9th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-9)*, Kaohsiung, Taiwan, September 9-13, 2012.

[15] Walter VILLANUEVA, Chi Thanh TRAN and Pavel KUDINOV, "Effect of CRGT Cooling on Modes of Global Vessel Failure of a BWR Lower Head", *Proceedings of the 20th International Conference on Nuclear Engineering* ***ICONE-20***, Anaheim, CA, USA, July 30 – August 03, 2012.

[16] A. Palagin, A. Miassoedov, X. Gaus-Liu, H. Muscher, M. Buck, C.T. Tran, P. Kudinov, L. Carenili, C. Koellein, W. Luther, V. Chudanov, "Analysis and Interpretation of the LIVE-L6 Experiment", *Proceedings of the 5th European Review Meeting on Severe Accident Research* ***(ERMSAR-2012)***, Cologne, Germany, March 21-23, 2012.

[17] C.T. TRAN and P. KUDINOV, "Local Heat Transfer from The Corium Melt Pool to The Boiling Water Reactor Pressure Vessel Wall", *Proceedings of the 14th International Topical Meeting on Nuclear Reactor Thermalhydraulics (NURETH-14)*, Toronto, Ontario, Canada, September 25-29, 2011.

[18] Walter VILLANUEVA, Chi Thanh TRAN and Pavel KUDINOV, "Assessment with Coupled Thermo-Mechanical Creep Analysis of Combined CRGT and External Vessel Cooling Efficiency for a BWR", *Proceedings of the 14th International Topical Meeting on Nuclear Reactor Thermalhydraulics (NURETH-14)*, Toronto, Ontario, Canada, September 25-29, 2011.

[19] Walter VILLANUEVA, Chi Thanh TRAN and Pavel KUDINOV, "A Computational Study on Instrumentation Guide Tube Failure during a Severe Accident in Boiling Water Reactors", *Proceedings of the 14th International Topical Meeting on Nuclear Reactor Thermalhydraulics (NURETH-14)*, Toronto, Ontario, Canada, September 25-29, 2011.

[20] P. KUDINOV, A. KARBOJIAN, C.T. TRAN, W. VILLANUEVA, "DEFOR-A Experiment on Fraction of Agglomerated Debris as a Function of Water Pool Depth", *Proceedings of the 8th International Topical Meeting on Nuclear Thermal-Hydraulics, Operation and Safety (NUTHOS-8)*, Shanghai, China, October 10-14, 2010.

[21] C.T. TRAN and P. KUDINOV, “A Synergistic Use of CFD, Experiments and Effective Convectivity Model to Reduce Uncertainty in BWR Severe Accident Analysis”, *Proceedings of OECD/NEA & IAEA ‘Experiment Validation and Application of CFD and CMFD Codes to Nuclear Reactor Safety Issues’ Workshop*, Washington D.C., USA, September 14-16, 2010.

[22] C.T. TRAN, P. KUDINOV and T.N. DINH, "An Approach to Numerical Simulation and Analysis of Molten Corium Coolability in a BWR Lower Head", *Journal of Nuclear Engineering and Design*, **Volume 240 (9)**, pp. 2148-2159, September, 2010.

[23] Nhan T. Nguyen, Minh Ha-Duong, **Thanh C. Tran**, Ram M. Shrestha and Franck Nadaud, "Barriers to the Adoption of Renewable and Energy-Efficient Technologies in the Vietnamese Power Sector", *Int. Journal Greater Mekong Subregion Academic and Research Network (GMSARN)*, **Volume 4 (2)**, pp. 89-103, June 2010.

[24] M. BUCK, M. BURGER, A. MIASSOEDOV, X. GAUS-LIU, A. PALAGIN, L. GODIN-JACQMIN, C.T. TRAN, W.M. MA, V. CHUDANOV, "The LIVE Program: Test and Analyses on In-Vessel Severe Accident Progression", *Journal of Progress in Nuclear Energy*, **Volume 52 (1)**, pp. 46-60, January, 2010.

[25] C.T. TRAN and T.N. DINH, "The Effective Convectivity Model for Simulations of Melt Pool Heat Transfer in a Light Water Reactor Pressure Vessel Lower Head. Part I: Physical Processes, Modeling and Model Implementation", *Journal of Progress in Nuclear Energy*, **Volume 51 (8)**, pp. 849-859, November, 2009.

[26] C.T. TRAN and T.N. DINH, "The Effective Convectivity Model for Simulation of Melt Pool Heat Transfer in a Light Water Reactor Pressure Vessel Lower Head. Part II: Model Assessment and Application", *Journal of Progress in Nuclear Energy*, **Volume 51 (8)**, pp. 860-871, November, 2009.

[27] W. MA, C.T. TRAN, “On Effectiveness of CRGT Cooling as a Severe Accident Management Measure for BWRs”, *Proceedings of Implementation of Severe Accident Management Measures – ISAMM Workshop*, Schloss Bottstein, Switzerland, October 26-28, 2009.

[28] P. KUDINOV, A. KARBOJIAN, C.T. TRAN, “Experimental Investigation of Melt Debris Agglomeration with High Melting Temperature Simulant Materials”, *Proceedings of Implementation of Severe Accident Management Measures – ISAMM Workshop*, Schloss Bottstein, Switzerland, October 26-28, 2009.

[29] F. CADINU, C.T. TRAN, P. KUDINOV, "Analysis of In-Vessel Coolability and Retention with Control Rod Guide Tube Cooling in Boiling Water Reactors", *Proceedings of NEA/SARNET In-Vessel Coolability (IVC) Workshop*, Issy-les-Moulineaux, France, 12-14 October, 2009.

[30] C.T. TRAN and T.N. DINH, "Simulation of Core Melt Pool Formation in a Reactor Pressure Vessel Lower Head Using an Effective Convectivity Model", *Journal of Nuclear Engineering and Technology*, **Volume 41 (7)**, pp. 929-944, September, 2009.

[31] C.T. TRAN and T.N. DINH, "Application of the Phase-change Effective Convectivity Model to Analysis of Core Melt Pool Formation and Heat Transfer in a BWR Lower Head", *Transactions of ANS 2008 Annual Meeting*, Anaheim, California, USA, June 8-12, Vol. 98, pp. 617-618, 2008.

[32] C.T. TRAN, T.N. DINH, "An Effective Convectivity Model for Simulation of In-Vessel Core Melt Progression in Boiling Water Reactor", *2007 International Congress on Advances in Nuclear Power Plants (ICAPP'07)*, Nice Acropolis, France, May 13-18, 2007.

[33] C.T. TRAN, T.N. DINH, "Analysis of Melt Pool Heat Transfer in a BWR Lower Head", *Transactions of American Nuclear Society (ANS) Winter Meeting*, Albuquerque, NM, USA, November 12-18, Vol. 95, pp. 629-631, 2006.

AWARDS

[1] First Grade Diploma, Diploma Competition of Moscow Power Engineering Institute, 1989. The Diploma title: "Application of Vertical Steam Generators for Nuclear Power Plant with VVER-440 Reactor" (Division of Nuclear Power Plant and Equipment, Department of Physical Energy, Moscow Power Engineering Institute, Soviet Union).

[2] Sigvard Eklund Prize 2011 for the Best PhD Thesis Related to Nuclear Technology among the Swedish Universities. The PhD Thesis title: "The Effective Convectivity Model for Simulation and Analysis of Melt Pool Heat Transfer in a Light Water Reactor Pressure Vessel Lower Head" at Nuclear Power Safety Division - NPS, Department of Physics, Royal Institute of Technology – RIT, Stockholm, Sweden.

INTERNATIONAL JOURNAL REFEREE

[1] International Journal of Thermal Sciences (**ELSEVIER**)

[2] International Journal of Numerical Methods for Heat and Fluid Flow (**Emerald**)

[3] International Journal of Power and Energy (**Sage, UK**)

[4] Heat Transfer Engineering Journal (**Tayler & Francis, UK**)

[5] Annals of Nuclear Energy (**ELSEVIER**)

[6] Moscow Power Engineering Institute (**MPEI**) Bulletin (**Russian Federation**)