

FarhoudKalateh

Assistant Professor in Civil Engineering (PhD)

Civil Engineering Department| University of Tabriz| www.tabrizu.ac.irIran-Tabriz, University of Tabriz,29Bahman Blvd. P.C. 5166616471

<http://asatid.tabrizu.ac.ir/en/pages/default.aspx?kalateh>|Tel: +98 (0) 4133288013

EDUCATION

- PhD, University of Tehran (2005-2011)
“Acoustic Cavitation Effects on nonlinear dynamic interaction of concrete Dams-Reservoir”
- MSc, University of Tehran (1997 –1999)
“Numerical Estimation of three dimensional distribution of Hydrodynamic Pressure in reservoir of Dams”
- BSc, University of Tabriz (1993-1997),
- High School Diploma in Mathematics and Physics, Talegani(Mansour)High School-Tabriz

PROFESSIONAL EMPLOYMENT

Assistant Professor (2011- till now)

- Numerical Computation (Undergraduate)
- Hydraulic (Undergraduate Students)
- System Engineering (Undergraduate)
- Elementary of Dam Engineering (Undergraduate)
- Finite Element Method (Graduate,MSc& PhD)
- Fluid-Structure Interaction (Graduate,MSc)
- Advanced Hydraulic (Graduate,MSc)

Supervisor Hydro-Structure Engineer (2011-till now)

-[SimabroodEngineering Consulting Company](#)

Hydro-Structure Engineer (1999-2001)

-[Farazab Engineering Consulting Company](#)

Hydro-Structure Engineer (2001-2011)

-[West Azerbaijan Regional Water Authority](#)

RESEARCH INTEREST

- Numerical simulation of Fluid-Structure Interaction

- Turbulent flow simulation methods (LES, RANS)
- Improvement of computational efficiency of smoothed Particle Hydrodynamic modeling of cavitating
- Numerical Simulation of Cavitating flow
- Blast loading effects on dynamic behavior of dams and fluid Tanks
- Optimization of Hydraulic Structure performance in regard of hydraulically and structurally aspects

HONORS

- Scholarship for PhD. from Ministry of Science, Research and Technology-Iran
- 2th rank out of more than 50 applicants in the PhD entrance exam of University of Tehran (2005)
- Second rank MSc Hydro-structure student in CivilEngineering Department of University of Tehran.(2005)
- 481thrank out of more than 150,000 applicants in the Bachelor generalentrance exam of Iranian universities. (1998)

COMPUTER SKILLS

Programming Languages

- FORTRAN, MATLAB

Professional Software

- Numerical Simulation Software (ANSYS, ABQUS, FLUENT, HECRAS)

PUBLICATIONS

1. Kalateh F., Koosheh A., Application of SPH-FE method for fluid-structure interaction using immersed boundary method, (Submitted Paper).
2. Kalateh F., Koosheh A., Finite element analysis of flexible structure and cavitating nonlinear acoustic fluid interaction under shock wave loading, (Submitted Paper).
3. Kalateh F., Dynamic FailureAnalysis of Concrete Dams under Air Blast using coupled Euler-Lagrange Finite Element method.(Accepted Paper in Frontiers of Structural and Civil Engineering).
4. Kalateh F., Hosseinejad F., Dynamic Coupled Analysis for Uncertainty Quantification of Saturated PorousMedia using Fuzzy Finite Element Method, (Submitted Paper).
5. Kalateh, F, Dadi, A. ,Evaluation of Characteristics of flood arise from dam-break in urban area under different height of water in the reservoir, 3rd International conference on New Research Achievements in Civil Engineering, Architectural and Urban Management, Iran, Tehran,2016.
6. Kalateh, F., Koosheh A., Comparing loose and strong finite element partitioned coupling methods of acoustic fluid-structure interaction: concrete dam-reservoir system, KSCE-civil engineering journal, 2016,Doi:10.1007/SI2205-016-0276-0
7. Kalateh F., Simulation of Cavitating Nonlinear Acoustic Fluid and Flexible Structure Interaction, The Ninth International Conference on Engineering Computational Technology(ECT2014)

8. Kalateh, F., "Safety Analysis of Zayandehriud Arch Dam" Proceedings, International Conference on Hydraulic Structures, Kerman, pp. 1205-1216(in Persian), 2001.
9. Kalateh, F. "Performance Study of monitoring in the Arasbaran Earth Dam", Proceedings, 7th , International Congress on Civil Engineering, TarbiatModares University, Tehran, Iran ,8-10 May 2006(in Persian)
- 10.Kalateh, F., Attarnejad, R. "Application of Computational Mechanics in the studying of Soil-Structure and Fluid-Structure Interaction", 5th International Conference on Seismology and Earthquake Engineering, Tehran-Iran, 2007.
- 11.Kalateh F., Attarnejad R., Nonlinear Dam-Reservoir Dynamic Interaction Analysis arising from Acoustic Cavitation, Proceedings in the Seventh International Conference on Engineering Computational Technology(ECT2011), Civil-Comp Press, Stirlingshire, UK, 2010, doi: 10.4203/ccp.94.161.
- 12.Kalateh F.,Attarnejad R. , Finite element simulation of acoustic cavitation in the reservoir and effects on dynamic response of concrete dams, Journal of Finite Elements in Design and Analysis, Vol. 47,pp: 543-558, (2011). doi:10.1016/j.finel.2010.12.004.
- 13.Kalateh F., Attarnejad R., A New Cavitation Simulation Method: Dam-Reservoir Systems, International Journal for Computational Methods in Engineering and Science, Vol. 13, pp:161-183,(2012), doi: 10.1080/15502287.2012.660232
- 14.Kalateh F., Finite Element Partitioned Solution Methods for Acoustic Fluid-Structure Interaction Problems, Submitted to Advances in Engineering Software, under review, (2012).

REVIEWER

- International Journal of Modeling, Simulation, and Scientific Computing
- KSCE Journal of Civil Engineering
- Engineering and Computational Mechanics
- International Journal of Nonlinear Sciences and Numerical Simulation
- Journal of Earthquake Engineering
- Journal of Civil and Environmental Engineering (University of Tabriz Press)