CURRICULUM VITAE

Foad Qassemi

March 2013

Personal information

Birth Date: 15th Apr. 1984
Marital status: Single

Contact Information

Home: Dabirestan St., Shar-e-Jadid, Bastak City, Hormozgan State, Iran
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Zip code: 79617-54848

Education

2009-2012
- M.Sc., Civil and Survey Eng. Dep., **Kerman Graduate University of Technology**
- Overall GPA: 18.37/20.00, *Graduated with honors*.
- Title of Thesis: *"Effect of ceramic nano particles on properties of modified bitumen"*.
- Research Advisors: **Dr. A.R. Ahmadi** (Associate Professor, Modern Science and Technology Dep., Graduate University of Advanced Technology), **Dr. M. Alizade** (Assistant Professor, Modern Science and Technology Dep., Graduate University of Advanced Technology)

2003-2008
- B.Sc., Chemical Eng. Dep., **University of Sistan and Baluchestan**
- Title of Thesis: *"Application of artificial neural network in chemical engineering"*.
- Research Advisors: Late **Prof. M. Khoshnoodi** (Professor, Chemical Eng. Dep., University of Sistan and Baluchestan), **Prof. R. Rahimi** (Professor, Chemical Eng. Dep., University of Sistan and Baluchestan)

1998-2002
- Pre-University certificate, High School, **Mostafavie high school**, Bastak, Iran.
- Major: Mathematics & Physics
- Total GPA: 18.03/20

Honors

- *Distinguished University Scholar* **2011** *(student branch)*, International Center for Science & High Technology & Environment Science and Kerman Graduate University of Technology.
- *Distinguished University Scholar* **2010** *(student branch)*, International Center for Science & High Technology & Environment Science and Kerman Graduate University of Technology.
- *1st student graduated* from faculty of Civil and Survey engineering – GPA: 18.37/20 – Kerman Graduate University of Technology, Kerman, Iran.
- *Top city graduate student*, Bastak, Iran, 2009.
- Candidate of *top country student*, Iran, 2011.

- Member of *the best scientific student association*, Kerman Graduate University of Technology, 2011
- Nominated for National Mathematics Olympiad competition, 1999.
- Total Quality Management (TQM) certificate, Alliance Academy (Canada), Middle East branch, 2009.
- Workshop of Nanotechnology and its Application in Architecture & Art Certificate, Hooman Baspar Noandich Co. Oct. 2011.
- Workshop of Nanotechnology and its Application certificate, Kerman Graduate University of Technology, March 2012.
- Workshop of Fuzzy Logic, Kerman Graduate University of Technology, 2012.
- 3rd person in provincial laboratory competition, Bandar Abbas, Iran, 1994.
- Member of 1st group of sing, locale competition, Bastak, Iran, 1994.
- 3rd person in locale competition of paint about maintenance of water resource, Bastak, Iran, 2000.
- SDRmap certificate, Fanni o Herfehi, Kerman, Iran, 2009.
- Course relief and aid certificate, Iranian Red Crescent Society, Bastak, 2011.
- Computer certificate (First level), instruction and culture Office, Bastak, Iran, 1997.

Research Interests

- **Chemical, Physical & Mechanical Properties of Materials**
- **Geomechanics**
- **Numerical methods**
- **Artificial neural networks**
- **Soft computing**
- **Fuzzy logic**
- **Materials monitoring**
- **Modified asphalt and bitumen**
- **Construction management**
- **Project management**
- **Infrastructure monitoring**
- **Micromechanics**
- **Nano and micro materials**

Publication

Journal Papers:

[1] A. Qassemi, M. Abdollahi, **F. Qassemi**, A. Salimi, *"Applications of Linear Algebra in Communication"*, International Journal of Advances in Science and Technology, Vol. 3, No. 4, 2011.

[2] A. R. Ahmadi, **F. Qassemi**, E. Sadrossadat, A. Qassemi, *"A comparison of sophisticated neural networks and Finite Element Method in estimating variations in permeability of earth-dam body during leakage phenomenon"*, Swiss Journal of Civil Engineering and Architecting (SJCEA), Vol. 1, Issue 1, 2012.

[3] A. Qassemi, **F. Qassemi**, *"Multi-Objective Spectrum Allocation Based on Differential Evolution Algorithm between Cognitive Radio Users"*, Swiss Journal of Electrical and Computer Applications (SJECA), Vol. 1, Issue 1, 2012.

[4]   **F. Qassemi**, E. Sadrossadat, A. Qassemi, H. Qassemi, M. Abdollahi, *"Analysis and Design Circular Tunnels under Earthquake Loads by Artificial Neural Network"*, International Journal of Science and Technology, Vol. 2, No. 9, 2012.

[5]   M. Khamse, P. Torkzade, **F. Qassemi**, *"Structural damage detection using hessian differences of the dynamic response in truss structures"*, Scientific Journal of Civil Paradise, Vol. 1, No. 1, 2011. (*In Persian*)

[6]   E. Sadrossadat, F. Soltani, A.H. Alavi, **F. Qassemi**, *"Deriving Nonlinear LGP-based Model for the prediction of Soil Deformation Modulus by Pressuremeter Test Results"*, Computers and Geotechnics Journal, (*under review*)

[7]   A. Ghasemi, M. A. Masnadi-Shirazi, M. Biguesh, **F. Qassemi**, *"Spectrum Assignment based on Bee Algorithms in Multi-Hop Cognitive Radio Networks"*, IET Communication Journal, (*submitted*)

[8]   **F. Qassemi**, M. Alizadeh, A.R. Ahmadi, *"Experimental investigation the effect of nano particles of calcium montmorillonite on the properties of bitumen"*, Journal of Material in Civil Engineering (ASCE), (*submitted*)

[9]   **F. Qassemi**, M. Alizadeh, A.R. Ahmadi, *"Experimental investigation the effect of nano particles of electric arc furnace dust on the properties of bitumen"*, Journal of Advanced Materials in Engineering, (*In Persian-submitted*)

[10] **F. Qassemi**, A. R. Ahmadi, A. Ghasemi, *"Comparison between sophisticated finite element method and neural network method in estimation of earth dam permeability variation"*, Science and technology journal of Iran water research, (*In Persian-submitted*)

Conference Papers:

[11] **F. Qassemi,** A.R. Ahmadi, M. Alizadeh, A. Qassemi, *"Prediction of Influence of Doping of $NaNO_3$ on the Solid Phase Thermal Decomposition of Bitumen using neural networks"*, 11th WSEAS International Conference on ARTIFICIAL INTELLIGENCE, KNOWLEDGE ENGINEERING and DATA BASES (AIKED '12), Cambridge, UK, February 2012

[12] **F. Qassemi,** F. Soltani, E. Sadrossadat, A. Qassemi, H. Qassemi, *"Estimating variations in permeability of earth-dam body during leakage phenomenon by neural network"*, 5th International Symposium Science and Technology, Mashahd, Iran, May 2011

[13] **F. Qassemi,** F. Soltani, S.H. Mousavi, H. Qassemi, *"Estimate the impact of oil pollution on clay by a neural network"*, 5th National Conference and Exhibition on Environmental Engineering, Tehran, Iran, winter 2011

[14] **F. Qassemi,** F. Soltani, A. Qassemi, H. Nazari, *"Investigation and utilization of tidal energy"*, National Conference of Utilization of Sea Sources, Kerman, Iran, January 2012, _Oral_

[15] **F. Qassemi,** A.R. Ahamdi, M. Alizadeh, *"Estimate of properties of SEBS modified bitumen by Multi Layer Perceptron"*, 1st territorial congress of Civil Engineering, Lahijan, Iran, February, 2012, *Oral*

[16] F. Soltani, **F. Qassemi,** H. Alangi, H. Qassemi, H. Nazari, *"Optimum design of pool of wastewater in coast"*, National Conference of Utilization of Sea Sources, Kerman, Iran, January 2012, *Oral*

[17] A. R. Ahmadi, **F. Qassemi,** E. Sadrossadat, A. Qassemi, *"Comparison between sophisticated neural network method and finite element method in estimation of earth dam permeability variation in leakage phenomenon"*, 6th National Conference of Civil Engineering, Semnan, Iran, May 2011, *Oral*

[18] F. Soltani, **F. Qassemi,** E. Sadrossadat, A. Qassemi, H. Qassemi, *"Analysis and design circular tunnels by Artificial Neural Network"*, 6th International Conference on Seismology and Earthquake Engineering, Tehran, Iran, May 2011

[19] F. Soltani, H. Alangi, **F. Qassemi,** *"Application of geosentetics in design of canals"*, National Conference of Utilization of Sea Sources, Kerman, Iran, January 2012.

[20] H. Qassemi, A. Esmaeili, H. Nazari Robati, **F. Qassemi,** E. Sadrossadat, *"Comparison between image processing & artificial neural network for denotation of building with different roofs in satellite images of Bandar Abbas"*, 4th National Conference on Retrofitting & Preservation of Historical Monuments & Building, Arak, Iran, winter 2011

[21] F. Soltani, H. Nazari Robati, **F. Qassemi,** *"Study changes in the soil matrix suction gable shear failure of soil"*, 4th National Conference on Retrofitting & Preservation of Historical Monuments & Building, Arak, Iran, winter 2011

[22] S.M. Marandi, H. Nazari Robati, **F. Qassemi,** *"Slope stabilization using micro-pile"*, 4th National Conference on Retrofitting & Preservation of Historical Monuments & Building, Arak, Iran, winter 2011

[23] H. Veisi, S. Azizi, **F. Qassemi,** A.R. Ashraf Ganguei, A.R. Bahrampoor, *"Estimation of behavior of biochemical plasmonic optic fiber by artificial neural network"*, Tabriz, Iran, February 2012.

[24] A. Qassemi, M. Masnadi Shirazi, M. Biguesh, **F. Qassemi,** *"Spectrum Allocation with Control of Interference Based on Differential Evolution Algorithm Between Cognitive Radio Users"*, ICEE2012 (20th Iranian Conference on Electrical Engineering (ICEE)), May, 2012, *Oral*

[25] A. Ghasemi, M. Masnadi Shirazi, M. Biguesh, A. Fakharzadeh Jahromi, **F. Qassemi,** *"A Game Theoric Spectrum Allocation with Control of Interference between Cognitive Radio Users"*, Sixth International Symposium on Telecommunication with emphasis on Information & Communication Technology (IST2012),Tehran, Iran, Nov. 2012 (*submitted*)

[26] A. Ghasemi, M. Shayesteh, H. Saeedinezhad, **F. Qassemi**, and M. H. Azizi Moghadam, *"Spectrum Allocation Based on Bee Swarm Optimization*

Algorithm in Cognitive Radio Networks", ICEE2013 (21th Iranian Conference on Electrical Engineering (ICEE)), 14-16 May, 2013, (*submitted*)

[27] **F. Qassemi,** A. Ghasemi, *"Comparison of three methods of Fuzzy Logic, Genetic Algorithm and Elite Ant Colony Algorithm in Optimization operation of Dams' reservoirs"*, 7th National Conference of Civil Engineering, Zahedan, Iran, May 2013, (*accepted*)

[28] **F. Qassemi,** A.R. Ahmadi, A. Ghasemi, H. Ghasemi, *"Prediction of the effects of injection on the permeability of granular soils by MLP neural network"*, 7th National Conference of Civil Engineering, Zahedan, Iran, May 2013, (*accepted*)

[29] A. Ghasemi, M. Masnadi Shirazi, M. Biguesh, A. Fakharzadeh Jahromi, **F. Qassemi,** *"Spectrum Allocation Based on Artificial Bee Colony in Cognitive Radio Networks"*, Sixth International Symposium on Telecommunication with emphasis on Information & Communication Technology (IST2012),Tehran, Iran, Nov. 2012 (*submitted*)

Presentation:

[30] **F. Ghasemi**, *"Numerical analysis of dam"*, Presented as Advanced Soil Mechanic, Kerman Graduate University of Technology, Kerman, Iran, May, 2010.

[31] **F. Ghasemi**, *"Stress and strain analysis earth dam by Geostudio software"*, Presented as Earth dams seminar, Kerman Graduate University of Technology, Kerman, Iran, May, 2011.

[32] **F. Ghasemi**, *"Bitumen and modified bitumen"*, Presented as M.Sc. seminar, Kerman Graduate University of Technology, Kerman, Iran, Sep. 2010.

Books/Books chapters:

- A. Anvari, F. Soltani, **F. Qassemi**, A. Qassemi, *"Application of artificial neural networks in engineering science"*, International Center for Science & High Technology & Environment Science Press, 2011, (*In Persian* - *Forthcoming*)

- F. soltani, **F. Qassemi**, H. Qassemi, *"Laboratory and Field Testing of Unsaturated Soils"*, International Center for Science & High Technology & Environment Science Press, 2011, (*In Persian* - *under review*)

Thesis:

[1] **F. Qassemi** *"Effect of ceramic nano particles on properties of modified bitumen"*, M.Sc. Thesis (*19.9/20.0*). Kerman Graduate University of Technology, 2012.

[2] **F. Qassemi,** *"Application of artificial neural network in chemical engineering"*, B.Sc. Thesis (*20.0/20.0*). University of Sistan and Baluchestan, 2008.

Supplementary Projects

➢ *"Numerical analysis of dam"*, Presented as Advanced Soil Mechanic – Dr. S.M. Marandi

- ➢ ***"Stress and strain analysis earth dam by Geostudio software"***, Presented as Earth dams Project – Dr. F. Soltani.
- ➢ ***"Design and cost estimation of mineral water factory"***, Presented as Economy and Design Project – Dr. Zivdar.
- ➢ ***"powder technology"***, Presented as Supplementary Operation – Dr. M. Samimi

Academic activities

- Member of committee in 1st Annual conference clean energy, Kerman Graduate University of Technology, Spring 2011
- Invited to membership of committee in 1st International Conference on Dam & Hydro powers, IRIB International Conference Center, Tehran, Feb. 2012
- Invited to membership of committee in 3rd National Conference on Dam & Hydro powers, IRIB International Conference Center, Tehran, Feb. 2012
- Invited to be Plenary Speaker-Session Organizer (Code 17801) in WSEAS Conferences of 2012
- Head of committee in scientific student association of water, soil and structural engineering, Kerman Graduate University of Technology, 2011
- Member of committee in scientific student association of water, soil and structural engineering, Kerman Graduate University of Technology, 2010
- Member of ASCE (student member) from 2010
- Member of committee in Nano technology of Iran from 2010
- Member of Canadian Society of Iranian Engineers and Architects (guest member) from 2012
- Member of National Observatory of Science and Technology from 2011
- Member of Iranian Society of Civil Engineers Website from 2012

Teaching/Experience

- Oct. 2010 – Jan. 2011, Dep. Of Civil Engineering, Kerman Graduate University of Technology
  Finite element analysis. (*Teacher assistant*)
- Oct. 2010 – Jan. 2011, Dep. Of Civil Engineering, Shahid Bahonar University of Kerman
  Finite element analysis 2. (*Teacher assistant*)
- Oct. 2011 – Jan. 2012, Dep. Of Civil Engineering, Kerman Graduate University of Technology
  Numerical Methods. (*Teacher assistant*)
- Oct. 2010 – Jan. 2011, Dep. Of Civil Engineering, Kerman Graduate University of Technology
  Numerical Methods. (*Teacher assistant*)
- Oct. 2011 – Jan. 2012, Dep. Of Civil Engineering, Nongovernment Institute of Mehravaran
  Reinforcement and Molding. (*Lecturer*)
- Feb. 2013, Mostafavie high school
  Basic Mathematics. (*Lecturer*)
- Oct. 2011 – Present, Jahad Daneshgahi Organization, Kerman
  MATLAB. (*Lecturer*)
- Oct. 2004 – Jan. 2011,
  Mathematics, Physics, chemistry and some software's such as Microsoft Word, Microsoft PowerPoint & …. (*Tutor*)

Academic & Industrial Experience

- International Center for Science & High Technology & Environment Science (2011)
  A research on effect of ceramic nano particle on physical properties of bitumen (*Co-Principal Investigator*).
- Des. 2009 – Jun. 2010 Company of Kar-o-Andishe, Kerman, Iran. (part time)
  Concrete and Steel Structure projects.
- Nov. 2011 – Feb. 2012 Company of Agricultural Mechanization south Larestan, Lar, Iran.

Mechanical project.

- Nov. 2011 – Feb. 2012 Company of Rahsaz Goudeh, Bastak, Iran.
  Road project.
- April 2012– June 2012 Company of Sadr Ab, Bandar Abbas, Iran.
  Site supervision works: Water storage project (concrete skeleton).
- Originator and head of Company of Rahil Bastak, Bastak, Iran, 2012.
  Trading Company.
- Originator and head of Company of Kasra Bastak, Bastak, Iran, 2010.
  Civil and electrical engineering Company.

Skills

Computer skills:

- *Mathematical software*
  Practical experience in MATALB, Maple.
- *ANN software*
  Practical experience in Neuro intelligence, NeuroXl predictor, Neuro solutions, NNSTP.
- *Civil software*
  Practical experience in Microsoft Project, AutoCAD, Geostudio 2004, Geostudio 2007, Etabs, Safe, SDRmap, 3D Home Architect Home Design Deluxe 6, Floor Plan 3D, Sweet Home 3D, X'Pert High Score, ABAQUS, Plaxis Foundation, Tadbir.
- *Chemical engineering software*
  Practical experience in Hysys, Aspen plus.
- *Popular software*
  Very well familiar with Windows group (i.e. XP, Vista, 7), Microsoft Excel, Microsoft Word, Microsoft PowerPoint.
- *Programming language*
  Pascal, Basic, LISP.
- *Other*
  Very well familiar with Endnote, Adobe Premiere, Ulead Video Studio 4.0, Adobe Frame Maker 8.0, Photo Studio Darkroom.
- *Additional skills*
  Practical experience in Simulink.
  Calculating Engineer at Tadbir.
  LATEX, MiKTeX, WinEdt, Texmaker and XePersian.

Work In Progress

Books:

- A.R. Ahmadi, **F. Qassemi**, A. Qassemi, *"Numerical methods"*, (*In Persian*)
- M. Rahnama, **F. Qassemi**, A. Qassemi, *"Lattice Boltzmann Method"*, (*In Persian*)
- H. Nazari Robati, **F. Qassemi**, *"Finite Element Analysis"*, S.S. Bhavikatti, (*translate to Persian*)
- **F. Qassemi**, A. Qassemi, H. Qassemi, *"Modified bitumen: primary and advanced"*, (*In Persian*)
- **F. Qassemi**, A. Qassemi, H. Qassemi, *"Shallow Foundations: bearing capacity and settlement"*, Braja M. Das, (*translate to Persian*)

References

- Dr. Ali Reza Ahmadi, Associate Professor, Dep. Of Modern Science and Technology
  Graduate University of Advanced Technology.
  Email: iran.mahan@gmail.com

- Dr. Mohammad Rahnama, Professor, Dep. Of Mechanical Engineering
  Shahid Bahonar University of Kerman.
  Email: mrah1338@gmail.com

- Dr. Fazlollah Soltani, Assistant Professor, Dep. Of Civil and Survey Engineering
  Graduate University of Advanced Technology.
  Email: soltani.fazlollah@gmail.com

- Dr. Ali Esmaeily, Assistant Professor, Dep. Of Civil and Survey Engineering
  Graduate University of Advanced Technology.
  Email: aliesmaeily@hotmail.com

- Dr. Mostafa Alizadeh, Assistant Professor, Dep. Of Modern Science and Technology
  Graduate University of Advanced Technology.
  Email: Mostafa_alizadeh56@yahoo.com

- Dr. Rahbar Rahimi, Professor, Dep. Of Chemical Engineering
  University of Sistan and Baluchestan.
  Email: rahimi@hamoon.usb.ac.ir