

Dr. Changiz Dehghanian



Tehran University, School of Engineering , Department of Metallurgical and Materials Engineering.

Education:

- Postdoctoral in corrosion and corrosion prevention, U.S.A., 1982
- Ph.D. in Chemical Engineering and Corrosion\Engineering, U.S.A., 1980.
- MS in Chemical Engineering and Corrosion Engineering, U.S.A., 1977.
- BS in Chemical Engineering, U.S.A., 1975.

Educational Experience:

- Tehran University, associate professor, teaching and research, September 2002 up to present.
- University of Technology in Isfahan, associate professor, teaching and research, December 1985 up to September 2002.
- University of Florida, U.S.A., Visiting professor, doing research, September 1991 to December 1993.
- University of Oklahoma, U.S.A., Post-Doctoral, doing research, September 1980 to September 1982.
- University of Oklahoma, U.S.A., Teaching and research assistant, September 1976 to September 1980.

Industrial Experience:

- Consultant and technical inspector for corrosion and protection of equipment in DMT company in Isfahan, September 1995 to December 1995.
- Consultant and technical inspector for corrosion and protection of equipment in Sepahan Cement Factory in Isfahan, September 1991 to September 1995.
- Senior research associate for material's section of Nuclear Technology center in Isfahan, September 1984 to December 1985.
- Senior Research associate and Supervisor in Corrosion Specialist, Inc., Pomona, California, U.S.A., September 1982 to September 1984.
- Consultant for cathodic protection project on Maricabo Bridge in Venezuela, September 1980 to September 1982.

Experiences on conducting Various Projects:

- Manager for the project "Evaluation of Corrosion and Wear Properties of Stainless Steel 316L as an Implant in Simulated Solution of Human Body" Supported by University of Florida Hospital, U.S.A.
- Manager for the project "Investigation on Mechanical, Corrosion and Wear Properties of Co-Cr-Mo (ASTM F799) in Simulated Solution of Human Body" Supported by NSF, U.S.A.
- Co-manager for the project "Manufacturing Nano-Structured Electrode for Rechargeable Ni-MH Batteries" registered No. 133, approved by Nano-Committee of Ministry of Science and Research Technology, 15/12/83:31/1895.
- Manager for the project "Feasibility for use of waste tire rubber in concrete" Supported by Research Center for building and housing in Tehran.
- Manager for the project "Development of a concrete resistive to Nitric acid" Supported by Petrochemical Company of Iran.
- Manager for the project "Evaluation for Application of Slag as an additive to Concrete" Supported by Isfahan Steel Melting Company.
- Manager for the project "Investigation of Microsilica Effect on Reducing the Corrosion of Steel in Concrete structures" Supported by Scientific Research Organization in Shiraz, Iran.
- Manager for the project "Investigation for the cause of Condenser Tubes Break down in Oxygen Unit of Isfahan Steel Melting Company" Supported by Isfahan Steel melting Company.
- Manager for the project "Manufacturing Electrolyzer for production of Hydrogen and Oxygen for use in acid Phosphoric fuel cell" Supported by Isfahan Agricultural Research Center.
- Manager for the project "Study and evaluation of Important Factors on Generator Insulating Specimens" Supported by Engineering and Technological Organization of Electricity of Iran.
- Manager for the project "Investigation on possibility of Regeneration of used Greece KG-10 in Sepahan Cement Factory In Isfahan" Supported by Sepahan Cement Factory In Isfahan.
- Manager for the project "Investigation on Performance and Optimum use of Slag in Concrete" Supported by Mobaraka steel Producing Company in Isfahan.
- Manager for the project "Development of a Non-destructive Method for Measuring the Depth of Polymer penetration in Concrete" Supported by University of Technology in Isfahan.
- Manager for the project "Effect of Scan Rate in Electrochemical Methods on Corrosion Mechanism of steel in Salt Solution" Supported by University of Technology in Isfahan.
- Manager for the project "Investigation on Corrosion Mechanism of Epoxy coated steel in Concrete" Supported by University of Technology in Isfahan.

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- Manager for the project “ Determination of Some of the Hydrodynamic Parameters in Flowing Solution by Measuring the Corrosion Rate of Metal in Solution” Supported by University of Technology in Isfahan.
- Manager for the project “Evaluation of Electrochemical Behavior of Copper in Drinking Water and Determination of Organic Matters and Coagulation Process on Water Treatment” Supported by University of Technology in Isfahan.
- Manager for the project “ Investigation of Cement coating on Steel and its Effect on Cathodic Protection of Steel in Comparison to Steel without coating in 3.5 % NaCl Solution” Supported by University of Technology in Isfahan.
- Manager for the project “ Investigation on Electrical Resistivity and Corrosion of Steel in Concrete Made of Cement and Slag” Supported by University of Technology in Isfahan.
- Manager for the project “ Investigation on the Cause of Corrosion of Steel in Drilling Fluids for gas and oil wells” Supported by Energy Organization in Washington, U.S.A.
- Manager for the project “ Investigation of Corrosion of Steel in Concrete and the Methods for Preventing it” Supported by University of Technology in Isfahan.
- Manager for the project “ Performance of various Inhibitors in Neutral, Acidic and Alkaline Solutions” Supported by Corrosion Specialist Inc., U.S.A.
- Manager for the project “Investigation on Quality of Coatings in Atmospheric Environment” Supported by Corrosion Specialist inc., U.S.A.
- Manager for the project “ Investigation on Corrosion of Steel in concrete due to the Penetration of Chloride ions and its prevention” Supported by NSF, U.S.A.
- Manager for the project “Evaluation of Various Additives in Concrete on Strength and corrosion of Steel in Concrete” Supported by Corrosion Specialist inc., U.S.A.
- Manager for the project “Influence of Steel and polypropylene Fibers in Concrete on Strength and Corrosion of Steel in Concrete” Supported by Corrosion Specialist inc., U.S.A.

Other Expertise Fields:

Familiar with most of electrochemical methods including DC and AC for analyzing mechanism of corrosion of metals in concrete, oil and gas wells and aqueous solutions, coatings, inhibitors, electrochemical refining of solutions; familiar with design, manufacturing and test of first and secondary batteries; familiar with electroplating of metals and plastics; industrial water treatment; selection and test of alloys for various applications; cathodic and anodic protection design; familiar with computer softwares; plasma electrolytic coatings; erosion and corrosion of biomaterials; electrodeposition of nano coatings.

Published and Presented Papers:

I have published and presented More than 95 papers in corrosion engineering subjects.