Postdoctoral Fellowship in Electrodeposition Research

The Center for Electrochemical Engineering (http://www.che.sc.edu/centers/CEE/), Department of Chemical Engineering (http://www.che.sc.edu/) at University of South Carolina (www.sc.edu) is launching an international search for one Postdoctoral Fellowship in the area of electrochemical engineering. The research objective is to develop corrosion resistant alloy deposits using DC and pulse plating processes. Preference will be given to a candidate who is well versed with testing of alloy deposits such as Zn-Mn, Zn-Ni etc using both physical and electrochemical characterization techniques. Knowledge of ASTM standards is an added advantage.

Successful candidate will join outstanding researchers in the area of electrochemical engineering who perform research in development of batteries, capacitors, fuel cells and mathematical modeling of electrochemical systems and interfaces. The Center for Electrochemical Engineering is recruiting this Postdoctoral Fellowship position with tentative start dates beginning as early as January 2012. The appointment will be initially for one year with an opportunity for renewal in the subsequent years.

**Responsibilities**: This position requires individuals who can support the technical work for the development of Zn-Mn alloy coatings. The responsibilities of these positions include (a) electrodeposition on steel substrates (up to 3” X 5”), (b) physical and electrochemical characterization using XRD, XRF, EDAX and SEM, (d) performance evaluation in neutral salt spray according to ASTM B117 (e) Experience in Devanathan-Stachurski technique to measure hydrogen permeation through bare and coated steel substrates is a plus.

The candidates should have the ability to prepare research plans and to generate and develop new ideas; ability to design and perform proper experimental setups. It is also expected from the candidate to be dependable and to have professional conduct in experimentation, writing reports, manuscripts and proposals and to help in supervision and management of the laboratory.

**Knowledge/Skills/Expertise Required**: Ph.D. in Chemical Engineering, Material Science or Electrochemistry/Expertise in electrodeposition and corrosion.

Applications must include the following materials for consideration: (1) A letter of interest that summarizes the candidate's research program and qualifications for the position and (2) curriculum vitae.

Review of application will begin immediately and will last until the position is filled.

Please send materials to: popov@cec.sc.edu.

Branko N. Popov
Carolina Distinguished Professor
Director Center for Electrochemical Engineering
Department of Chemical Engineering
University of South Carolina
Columbia, SC 29212
Ph: (803) 777-7314
Fax: (803) 777-8265
Cell: (803) 361 7684
Web: http://www.che.sc.edu/faculty/popov/default.htm
CEE web: http://www.che.sc.edu/centers/CEE