Post-doctoral researcher- Rheology of cementitious suspensions for 3D-printing applications
University of California Los Angeles

Job Title: Post-doctoral researcher- Rheology of cementitious suspensions for 3D-printing applications
Department: Department of Civil and Environmental Engineering
Institution: University of California Los Angeles

Date Posted: Sep. 7, 2019
Application Deadline: Open until filled
Position Start Date: Nov. 1, 2019

Job Categories: Post-Doc
Academic Field(s): Polymer Science, Mechanical Engineering, Material/Metallurgy, Construction Engineering/Management, Civil Engineering, Chemical/Petroleum, Engineering - Other

Apply By Email: gsant@ucla.edu

Job Description

Subject: Seeking qualified candidate for post-doctoral researcher position in the rheology of cementitious suspensions for 3D-printing applications

The Laboratory for the Chemistry of Construction Materials (LC2) in the Department of Civil and Environmental Engineering is seeking a candidate for a post-doctoral researcher position starting November 1, 2019. Special emphasis is placed on recruiting candidates with a Ph.D. in materials science/engineering, polymer engineering, civil engineering or a closely related discipline with
expertise in the rheological characterization of suspensions (e.g., 3D-printable cementitious suspensions) with a capacity for world-class research that is reflected in a strong publication record.

The successful candidate will develop novel methods for actively controlling the rheological behavior of cementitious suspensions. Particular focus will be placed on assessing and tuning time-dependent rheological behavior, in relation to suspension extrudability, shape stability, and interlayer bonding. Methods for altering interlayer bond will also be studied. For reference, applicants are referred to sample publications including:


For full consideration, the applicant is expected to possess a doctoral degree from a reputable university in a topic of relevance (see above). Interest in working in a fast-paced, collaborative research environment is necessary. Applicants with the most relevant research experience in suspension rheology, particle-polymer interactions, and cement-based materials will be strongly preferred.

The successful candidate will be expected to take personal initiative to structure tasks to meet project functions and author novel publications. The candidate will also be expected to mentor Ph.D. and undergraduate students, teach courses in relation to expertise (if the opportunity arises), fulfill project administration functions, and assist in proposal development. The candidate is expected to meet programmed project goals, and be capable of responding to deliverable timelines in the academia-industry collaborative research.

All positions are programmed for a 1-year duration but can be extended by mutual agreement. If you meet the above requirements and are interested in this position, please provide the following
documents (as PDFs) to the contact noted below: (1) a detailed resume, (2) a short personal statement explaining your scientific and research interests, and (3) contact information for three referees in support of your application.

Contact:

Prof. Gaurav N. Sant  
Professor and Henry Samueli Fellow  
Department of Civil and Environmental Engineering  
University of California, Los Angeles, CA 90095  

Director, Institute for Carbon Management  
Email: gsant@ucla.edu

Contact Information

Please reference AcademicKeys in your cover letter when applying for or inquiring about this job announcement.

Contact  
Prof. Gaurav N. Sant  
Department of Civil and Environmental Engineering  
University of California Los Angeles  
Los Angeles, CA 90095

Contact E-mail  
gsant@ucla.edu