Interesting Research Positions Available

Structures and Materials Analysis Branch
For information contact Joe Holland at 916-227-7151 or t_joe_holland@dot.ca.gov

**Roadside Safety Research, T.E. Civil**
Design and analyze new or improved roadside safety devices using modern analysis techniques and finite element simulations. The objective of the research is to create safety devices such as guard rails, bridge rails, median barriers, light standards, and other roadside features that protect the travelling public in the event of an accident. Specific research tasks include but are not limited to: devices that either contain and redirect the vehicle; safely decelerate the vehicle in a short distance; break away, fracture or yield; allow controlled penetration; or is traversable without causing serious injury. This work would also involve some participation in full scale crash testing to validate simulations.

**Vehicle Loads and Permits Research, T.E. Civil**
Vehicle Loads and Permits Research includes assessment of heavy vehicle loading conditions on pavements and bridges, evaluations of truck weight and dynamic weight transfer and axle group load response, economic impacts of truck suspension systems and development of policy recommendations. Specific research tasks include but are not limited to: developing numerical suspension models and developing road profile data. The object of the research is to reduce the damage and enhance the safety of oversize and overweight loads on the transportation infrastructure.

**Facility Operations Research, T.E. Civil**
Resolve research issues in Facility Operations that improve Caltrans’ operations and response capabilities. Focus areas include empirical and analytical modeling of traffic flow and traffic operations, transportation network reliability and associated risk analyses, and incident and disaster response. This position will involve coordination with Federal and State disaster response agencies. Specific research tasks include but are not limited to: proposal development, work plan development, project performance, project management, technology development and evaluation, report preparation and review, and training and technology transfer. Applications will be screened and most qualified will be interviewed.

Standard application forms are available at:
http://www.spb.ca.gov/jobsgen/app.htm

An internet exam is available for non-state employees at:
http://www.dot.ca.gov/hq/jobs/ElectronicExam.html

California Department of Transportation, Sacramento, CA
Interesting Research Positions Available
Durability and Maintenance Engineering Branch

**Structural Connections Research, T.E. Civil**

Hands-on applied research and project management for structural connection applications. Structural Connections Research involves improving the understanding of failures and developing improvements in materials, construction methods and details used in the transportation infrastructure. The photo on the right shows the installation of the Quick Change Sign Post, a research project currently in the implementation phase. Other examples of potential research projects include anchor systems, thread locking products, bolting applications and a variety of topics as needs arise.

**Corrosion and Material Durability Research, T.E. Civil**

Corrosion and material durability research is needed to improve the life expectancy of structures and roadways as well as other transportation facilities. Areas of research include understanding of causes of corrosion in various materials, investigating new more durable materials and evaluating methods of mitigation.

**Non-Destructive Testing and Composites Research, T.E. Civil**

As a rapidly changing and technology driven area, Non-Destructive Testing and Composites Research is an exciting field. The open position involves laboratory and field evaluation of new and alternative non-destructive testing techniques, to assess the engineering behavior or quality of construction materials used in structures, pavements, and foundations.

Caltrans
California Department of Transportation, Sacramento, CA
For information contact Bob Meline at 916-227-7031 or bob_meline@dot.ca.gov