

URL	TITLE	ABSTRACT	PUBLICATION	DOI
http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=5775452	Experimental study on the frame joint between the concrete-filled steel tube column and steel reinforced concrete beam	In order to study the bearing capacity of a joint in composite structure of a railway station, A 1:4 scale specimen subjected to the monotonic and hysteretic load was investigated through laboratory test. Belonging to the overloaded floor system which spans about 36m×28m, the joint connects the concrete-filled steel tube column with steel reinforced concrete beam, size of which exceeds more than 1.5m. Strand and steel stagger each other in the core area of joint, the mechanical behavior of which is great complicated. The joint mechanical property is obtained in test and some optimizations are proposed for joint design.	2011 International Conference on Electric Technology and Civil Engineering (ICETCE)	10.1109/ICETCE.2011.5775452

http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=5304868	Numerical Simulation of 3-D Temperature in Reinforced Concrete Structure under Fire	Calculating the change of temperature field in reinforced concrete under fire is very important for the analysis on the change law of intensity, deformation and fire resistance performance in high rise building construction. Based on the unsteady three-dimensional heat conduction differential equation, the discrete equation of unsteady three-dimensional temperature field under fire is established with control volume method. Comparison between the numerical results of the unsteady temperature field for the reinforced concrete slab in fire and the tested data shows that they are basically identical. Computation of one reinforced concrete corner in fire, made up with slab, beams, column and brick walls, is conducted and related results are presented. The result shows: the temperature distributions of the surfaces exposed to fire in all directions is not uniform and the integral structure temperature field calculation of building under fire is a problem that should be considered in three dimensional method. The wave-like temperature distribution is showed in the exposed surface because of the steel bars. The fire resistance analysis of the slab and column which are viewed as a whole should be considered simultaneously.	2009 International Conference on Management and Service Science	10.1109/ICMSS.2009.5304868
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http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=4737786	An Experimental Study on a New Type Joints of Steel Tube Confined Concrete	The working-well performance of joints between reinforced concrete beams and steel tube confined concrete columns is vital to popularize steel tube confined concrete in China. A new type of steel tube confined concrete joint (crossed corbel and ring beam) is put forward to solve the difficulty in application of fat columns of high-raised buildings. Joints are tested under both monotone load and reverse load. Test results show that the load capacity and ductility of the new type joints are satisfied well with the Chinese codes. For more ductility the new type joints is revised by tests and has been used in the engineering practice. On the basis of the test results, the new type joints are further modified and have been used in the engineering practice.	2008 International Conference on Information Management, Innovation Management and Industrial Engineering	10.1109/ICIII.2008.125
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http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=5747950	Influence of Diaphragm Cracks on Load Transversal Distribution Coefficients of PC Multi Girder Bridge	Based on nonlinear theory of reinforced concrete, the influence of diaphragms' cracking on the load transverse distribution for the prestressed concrete multi-T-girder bridge is studied. Compared with results from traditional theory called hardening connective plates, the applicable range of the theory is determined. From shell element degraded from continuous body, steel and concrete are modeled by layered shell element. With some available criteria, the material nonlinear properties of concrete and steel are considered. Then the procession of cracking, yielding and failure of prestressed concrete multi-T-girder bridge is imitated and the analytical three-dimensional procedure is compiled. For a certain prestressed concrete multi-T-girder bridge, combined with traditional theory of hardening connective plates, some load cases including uniform loads, symmetric loads and offset loads are calculated. From the results, it is shown that the cracks in the diaphragm weaken the transverse connections between the beams, which leads to the unsatisfying change of the transverse distribution of the loads. When the bridge is subjected to uniform loads, the result from the nonlinear procedure is coordinative with that from the theory of hardening connective plates. When the bridge is subjected to symmetric loads and offset loads, the result from the nonlinear procedure is not in agreement with that from the traditional theory and when the diaphragms are in cracks, analysis by the theory of hardening connective plates may	2011 International Conference on Computer Distributed Control and Intelligent Environmental Monitoring	10.1109/CDCIEM.2011.105
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http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=5774655	Flexural strengthening of fire-damaged reinforced concrete continuous T-beams with CFRP sheets	Experiments of seven reinforced concrete (RC) two span T-beams were introduced. During the experiments, one T-beam was normal temperature control T-beam, and the other six T-beams were heated under ISO-834 standard fire. All T-beams had the same geometrical dimensions and reinforcement as well as the loading and support arrangement. The fire-damaged T beams were classified into two groups according to the fire exposure time. Different fire exposure time including 60 minutes and 75 minutes were investigated. In each group, one T-beam was unstrengthened fire-damaged control T-beam, and the other two T-beams were strengthened with carbon fiber reinforced polymer (CFRP) sheets after fire. The results showed that midspan yield load, ultimate load, stiffness and ductility of the fire-damaged T-beams decreased comparing with these of the normal temperature control T-beam, while ductility and stiffness dropped more sharply. External strengthening with CFRP sheets was found to increase the load capacity and stiffness of T-beams, but the ductility of T-beams dropped. Different from the normal temperature T-beam, the fire-damaged T-beams had obvious moment redistribution at the beginning of the loading because of the variable stiffness along the length of the T-beams. The moment redistribution of fire-damaged RC continuous T-beams changed greatly because of the influence of fire. Under the same heating curve, fire exposure time was one important factor that influences the moment redistribution	2011 International Conference on Electric Technology and Civil Engineering (ICETCE)	10.1109/ICETCE.2011.5774655
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http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=5619357	Notice of Retraction Nonlinear finite element analysis of exterior RC column-to-steel beam connection	Notice of Retraction After careful and considered review of the content of this paper by a duly constituted expert committee, this paper has been found to be in violation of IEEE's Publication Principles. We hereby retract the content of this paper. Reasonable effort should be made to remove all past references to this paper. The presenting author of this paper has the option to appeal this decision by contacting TP11@ieee.org. A nonlinear three-dimensional finite element analysis of exterior RC column-to-steel beam (RCS) connection is performed by ANSYS finite element software. The numerical results, including the lateral load-drift relationship, lateral load-joint shear distortion relationship, shear stress distribution and effective width of the steel web at the last convergence substep, are compared with experimental results to assess the suitability of the finite element model (FEM) in predicting the ultimate response of RCS connection. The study shows that ANSYS FEM may simulate the behavior of exterior RCS connection under static loading very well, and good agreements are observed between the numerical and experimental results. Furthermore, the other static behaviors of exterior RCS connection, such as distribution of the minimum principal stress of the joint panel zone, concrete minimum principal stress-equivalent uniaxial strain relationship, story drift on the top end of the column and its component, the individual contribution of different elements to the joint shear	2010 International Conference on Computer Application and System Modeling (ICCASM 2010)	10.1109/ICCASM.2010.5619357
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