Table of Contents

Preface, Oganizers and Committees

Chapter 1: Architectural Design and its Theory

| Z.Y. Nie and Q. Li | 3 |
|---|-----|
| Technique Analysis of Renovation and Re-Use Design of Berlin Neukölln District Water Pumping Station Building L. Zhao, J. Zhang and Z.H. Zhang | 10 |
| The Elastic Parameters Analysis of Asphalt Overlay the Crashed Cement Concrete Pavement Based on Reliability Theory | 1.6 |
| Y. Wang and L. Yang Analysis on Architectural Bamboo Surface | 16 |
| Q. Liu and T. Lin | 21 |
| Evolution Process of Residential Xiaoyuan Space Forms over the Past 60 Years - The Case Study of Residential Xiaoyuan in Jiaodong Coastal Areas and the Rural Areas in Yantai Longkou H. Fang and J.Q. Lv | 26 |
| The Analysis of Geological Condition of Hada Mount's Water Control Project X.Y. Tian and B. Jiang | 30 |
| The Innovation Research about Family of Three's "Extreme Living Product" in the Context of High Housing Price Y. Huang | 34 |
| Poetic Perception in Built Environment - Anchoring Local Context within Contemporary | 51 |
| Architecture Y.W. Kong, Y. Xia and L.N. Wang | 38 |
| Discuss the Loss of Traditional Culture in Modern Architecture Q. Liu, N. Shi and J. Chang | 42 |
| The Conceptual Design of High-Rise Structures M.C. Xue and Y.S. Zhao | 46 |
| Study on Strength Properties of Reinforced Expensive Soils with Failured Material J.H. Liu, W.T. Ding and Y.P. Liu | 51 |
| Performance Language of Glass in Architecture Designing Y. Chu, J.Q. Lv and T. Zhou | 55 |
| Explores the Hospital Building Design Using the Matrix Principle Y.F. Huang | 60 |
| On the Elements for Developing Contemporary Environment-Friendly Architecture C.H. Xu, J. Xiong and S.C. Xu | 64 |
| The Dynamic Characteristic of Gear Pump-Motor Unity Machine J. Zhang, S.Q. Lu and Y. Yuan | 68 |
| Study on Static Strength of Circular Hollow Section (CHS) T-Joint Reinforced with FRP C. Chen, Y.B. Shao and J. Yang | 72 |
| Architects: From Tool Users to Tool Makers, Exemplified by "Auto-Theater" J. Peng | 76 |
| The Seismic Response Analysis of Isolation Structure with Shape Memory Alloy Re- Centring Dampers | 0.1 |
| X.Y. Miao, S.L. Wang and Y.J. Fan Dike Folk Houses - Vernacular Ecological Architecture of Southeast Henan | 81 |
| Y.Y. Cheng and Y. Su | 91 |
| Study on the Method of Making Road-Base-Map of Traffic Accident Scene S.Z. Chen, L.B. Yao, H.B. Wu, H.L. Ji and M.L. Men | 96 |
| A Profound Discussion of the Inconsistencies in a Clamped Magnetostrictive Film-Substrate | |
| System M. Li and H.M. Zheng | 100 |

| Fracture Behaviour of Flexible Polyethylene Foams for Potential Use in Damping Applications | |
|---|-----|
| J.I. Velasco, M. Antunes, D. Arencón and A. Martínez | 106 |
| Numerical Heat Transfer Model of Buried Pipe and Ground Thermal Conductivity | |
| Measurement M.Z. Yu, L. Zhang, X.F. Yu and Z.H. Fang | 112 |
| Study on the Utilization of FBC Ashes as Cement Admixture J.X. Liu, Y.M. Song, H.Z. Xu, Y.L. Ma, Y.B. Yue and L.H. Zhang | 116 |
| Research on Grey Evaluation for the Port Security and Risk S.K. Zhang and Z. Lu | 120 |
| Renew and Extension of Vigor in Historical Block - The Background Study of Historical Block and the Building Overhang Protection and Synthesis Reform in Haikou Y. Yang, Y. Xiong and Y.R. Shen | 126 |
| Study on Sudden Water Pollution Incidents of Guangdong Huanggang River Y.L. Zhang, M. Xiao and W.H. Zheng | 131 |
| Statements of Historical Memories - The Detail Planning and Design of Zhang Xiangwen's Former Residence | 136 |
| J.H. Hao, F. Zhou and E.D. Liu Experimental Study on Durability of Air-Entrained Concrete of Qingdao Bay Bridge Q.R. Yang, B.L. Guo, Q.B. Yang and Q.Q. Li | 142 |
| Test Study on the Durability of Recycled Concrete Mixed with Recycled Concrete Powder and Aggregate | 1.2 |
| Y. Dong, B.T. Wang, H.J. Li and W.Z. He | 146 |
| Treatment of Succade Wastewater with the Coagulating Agents PAC and Ferrous Sulfate Y.L. Zhang, Y.X. Zhang and C.H. Wei | 154 |
| Durability of Green High Performance Alkali-Activated Slag Pavement Concrete Y.G. Wu, L.C. Cai and Y.W. Fu | 158 |
| Curved Surface and Material Design and Construction X.F. Yu, C.X. Li and J. Lin | 162 |
| Study on Ultimate Bearing Capacity and Anti-Slip of the Stud Y.M. Dai, X.G. Yan, J. Chen and X.J. Wang | 166 |
| Chapter 2: Building Technology Science | |
| A New Learning Method Based on Cybernetics H.M. Tang | 173 |
| Study of Dynamic Visual Query Demonstration System for Steel Bridge Constructing Process | |
| H. Jiang, Q. Wei and Y.D. Peng | 177 |
| Research on Dynamic Response of Underground Circular Lining Tunnel under the Action of P Waves H. Xu, T.B. Li and L.Q. Li | 181 |
| Application of Fuzzy Mathematics and Comprehensive Assessment in Campus Architecture Safety Assessment | |
| Y.M. Zhang and Y. Xu A CAD Mapping Study Based on a VB Blasting Crater | 190 |
| H.X. Liu, Q.Y. Fu and Z.Q. Meng Improved PSO in Water Supply Systems Based on AHP-RS and RBF Neural Network | 195 |
| A.J. Wang and C.L. Liu Prediction of Station Passenger Flow Volume Based on Fractal Theory | 199 |
| Q.F. Tian, S.Z. Zhao and Y. Cao Research on the Height of Caving Zone and Roof Classification of Mining Whole Height at | 203 |
| One Times in Thick Coal Seam Z.Q. Wang, H. Yang, Y.B. Chang and P. Wang | 207 |
| Study on the Reinforced Concrete Column Strengthened by GHPFRCC with High Volume of Fly Ash | 212 |
| X.L. Li and M. Luo | 213 |

| Research on the Outdoor Microclimate of Cold Residence J.H. Zhang, N. Wang and X. Guo | 220 |
|---|-----|
| Application of Seismic Energy Dissipation Approach to Curved Continuous Girder Bridge X.J. Qi, Y. Liu and C.H. Zhang | 224 |
| Improved Combination GM(1, 1) Model and its Application in Distortion Inspection Y.H. Deng | 229 |
| Research on Risk Sharing Mode of the Construction Project Based on Systems Theory Y.P. Hu | 233 |
| Calculation and Application of Instability Critical Load on Cuplock Scaffold Q.C. Chen | 238 |
| Study on the Influencing Factors under Dynamic Drainage Consolidation R. Xue and J. Hu | 243 |
| Application of Improved Safety Inventory Quantity in Building Construction X. Chen, X.F. Zhou and W. Hou | 250 |
| Failure Analysis on Main Drive System of Tracked Vehicles M.C. Xue and J. Wu | 254 |
| Construction of Processing Model for Massive Terrain Data Used in Three-Dimensional Terrain Visualization M.Q. Yang and L. Wei | 259 |
| Research on Dynamic Display System of Highway Traffic Incident Information Based on GIS | |
| X.C. Wang and P.G. Jiao | 264 |
| A Simplified Estimation of Critical Pedestrian Number on Lateral Vibrating Footbridge Based on Social Force Model H. Ye and Z.G. Song | 268 |
| Investigation and Analysis on Seismic Damages of Mountain Tunnels Subjected to Wenchuan Earthquake S.J. Tao, B. Gao, Y.M. Wen and X. Zhou | 273 |
| An Evaluation of the Level of Liquefaction in an Iron Mine in the Central Henan Transit | 213 |
| Railway Line Project S.J. Qu, J.F. Liu and H.X. Liu | 282 |
| Research of Aero-Engine Life Prediction Based on Take-Off EGTM H.B. Peng, M. Dan and H.C. Qu | 286 |
| Study on Response of Reinforced Concrete Beam under Accidental Impact by Piece Part Model | |
| D.R. Wang, S.F. Feng and H. Lu | 293 |
| Fire Performance of CFST, SRC and RC Frames G.Y. Wang, X.Q. Wang, G.W. Liu, X.Y. Liu and D.F. Ma | 300 |
| Temporary Support Design on Large-Span Casting Box Girder of the Songpu Bridge H.J. Wang, Z.C. Xue and Z.Q. Han | 304 |
| Evaluation and Performance Prediction for Asphalt Pavement Preventive Conservation Measures | |
| Y.H. Yang, H.Z. Zhang and B. Wang | 308 |
| Based on AHP to Study the Comprehensive Evaluation of Architectural Space's Physical Environment Z. Xu, X.Q. Fan, T. Fan and Y.T. Gao | 314 |
| Study of Properties of Concrete with Mineral Materials of Gangue | 314 |
| Y.F. Meng, Q.H. Sun and R.T. Ma The avertical Analysis of Panding Conscituted II. Section Steel Engaged Consents Comparity | 318 |
| Theoretical Analysis of Bending Capacity of U-Section Steel-Encased Concrete Composite Beams with the Full Connection Design X.J. Zhou and T. Zhang | 327 |
| Monitoring and Analysis for Air Defense Shelters in Freeze Soil Region B.F. Duan, H.C. Li, Y.K. Zhang, M. Zhang and L. Li | 332 |
| Background Response Equivalent Static Wind Load of Large-Span Roofs Based on Energy | |
| Equation Y.X. Li, Q.S. Yang and Y.J. Tian | 338 |
| Analysis on the Generation Operation of the Three Gorges Reservoir during the Experimental Operation Period C.M. Ji, Z.Y. Pei, Y.K. Zhang and T. Zhou | 342 |

| Numerical Simulation on Real-Time Temperature Field and Strength Field of Bridge Mass Concrete | |
|--|-----|
| C.M. Zhu, Y.Z. Wang, B. Yan and H.W. Gao | 346 |
| Study on 3-D Flow Field of Concrete Volute Conduit of Circulating Water Pump in Nuclear Power Plant X.B. Sun and X.B. Qiao | 350 |
| Prediction on Coincidence Effect of Sound Insulation of a Wall X.F. Huang, J. Liu and Y. Yang | 354 |
| Research on the Safe Lighting of Minor Radius Curve Spiral Tunnels L.X. Fu, H. Ren, J.H. Wang and T.L. Zhang | 358 |
| Study on Response of Slope Collapsing and Sliding in Elevation Difference due to Seismic | |
| Action F.P. Cui, Q. Xu and K. Yang | 366 |
| Study on Failure of Rock Mass around Deep Tunnel Y.H. Qian, T.T. Cheng, X.M. Cao and C.M. Song | 370 |
| Study on Preparing Aero-Concrete Using Leaching Residual Slag of Lepidolite Ore S.W. Huang, C.L. Zeng, Y.H. Xu and Q. Luo | 375 |
| The Dynamic Responses of Anti-Slide Piles Reinforced in the Rubble Soil Landslide F. Sun, J.M. Kong, Q. Cai, F.Y. A and Y. Cui | 379 |
| A Study on the 3D Fine Model of a Large-Scale and Complicated Steel Truss Bridge Q. Wei, H. Jiang and S.J. Li | 383 |
| Energy Consumption and Analysis of Air-Conditioning System of Large-Scale Public Buildings in Xi'an W.Y. Pan, L. Yang and Z.H. Zhang | 388 |
| Review on Public Transportation System in Tehran City H.R. Ebrahimi, S. Pourheidari, S. Zivari and A. Yavari | 393 |
| Study on the Reinforce Scheme to a Karst Slope of Shuinan Highway W.X. Zhu and W.T. Ding | 400 |
| Effect of Local Damage on the Performance of Structures J.X. Xu and L.C. Zhang | 406 |
| Isolation Mechanism and Method for Buried Segmental Pipeline under Earhquake-Induced Large Displacement | 410 |
| A.P. Tang, A.H. Wen, L.H. Gai and R.H. Zhong Research on the Springback Quantity of the Load Test on High-Speed Railway | 410 |
| J.Y. Chang and Z.J. Liu | 414 |
| Study on Sulfate Resistance of Concrete with Compound Mineral Admixture Q.R. Yang, X.Q. Wang and H. Ji | 420 |
| The Unified Formula of the Calculation of Flexural Members Strengthened Y.H. Li, S.Y. Ren and B. Yi | 426 |
| Reuse of Reclaimed Materials in Construction - From the Process Analysis of BedZED H. Tang, Q.G. Hu, Y.Y. Xu and Y.H. Yang | 433 |
| Dynamic Compaction Prefabricated Drain Soft Foundation Treating Method and its | |
| Application H.W. Liu, S.L. Xia, J. Zhao and S.S. Zhu | 440 |
| Modelling Long-Term Bridge Deterioration at Structural Member Level Using Artificial Intelligence Techniques | |
| J.H. Lee, H. Guan, Y.C. Loo, M. Blumenstein and X.P. Wang | 444 |
| Chapter 3: Urban Planning and Design | |
| Effect of Social Choice on the Chinese Urban Residential Space Planning H.W. Yang | 457 |
| The Application of Ore Surface Model in Computer State Delineating Method Y.Y. Zhao, P. Bai and X.H. Liu | 462 |
| The Study on Adaptive Design of Mountainous Old Campus Space Renovation - A Case Study on Chongqing University J. Zuo and X.L. He | 466 |
| v. Env min 11.E. 11v | 100 |

| Design and Analysis on the Function of Huge Underground Space in Modern City Z.F. Hu | 471 |
|--|-----|
| The Utilization of the Contrary Space Sequence Analytic Method in Modern Villages and Towns Planning Design | |
| P. Yao Study on the Vertical Design of Urban Underground Complex Pipeline | 475 |
| Q.P. Wang, Y. Bai, Q. Zhang, L.J. Wang and T.T. Liu | 479 |
| Protection Planning of Historical and Cultural City Based on the Concept of Disaster Prevention and Reduction Y. Hui and Q. Jian | 483 |
| Evaluation Analysis of Ecological Footprint Model Y. Li, T.T. Guo and P.P. Li | 487 |
| The due Changes of Urban Planning in China: Reflections on an Event of Sanitation Facilities Construction | 404 |
| L.S. Wang, Y. Yuan, M. Hu, K. Pan, J.B. Ni and Q. Liu A Construction of Landscape Evaluation Indicator System for the Urban Comprehensive | 491 |
| Park Based on the Theory about Three Elements H.M. Li and Y.M. Jin | 496 |
| Research on Conservation Planning Method of Lingnan Ancient Villages | |
| P. Su Typology of Urban Planners | 501 |
| J.H. Shi | 507 |
| Cultural Planning of Residential Area in Historical and Cultural City - Interpretation of | |
| Cultural Planning Y. Yue and P. Dai | 511 |
| Inherit Historical Culture and Create Livable Environment M.Y. Zeng and Q.S. Xian | 515 |
| Planning Control of Automobile Trade Logistics Park: The Case of Auto Parts Logistics Center in TAIAN | |
| H.F. Qi and D. Chen | 519 |
| Ranking of Strategic Management Indicators in Improvement of Urban Management by Using Multiple Attribute Decision Method of TOPSIS M.R.S. Moghaddam, A. Yavari, F. Ghariblu and Y. Anbari | 524 |
| A Study of the Suitability Standards of Sports Facilities in Counties Governed by Ankang | 324 |
| City M.H. Huang, X. Wu and X.N. Shi | 531 |
| Redistribution of Land Value-Added Caused by Urban Planning | 331 |
| J. Bi and Y.Z. Huang | 535 |
| On Carbon Emissions Measure and its Influencing Factors of Yunnan Province: 1998-2008 Y. Zhang and Y.L. Mao | 539 |
| Study on Regional Cultural Landscape Classification of Kunming's Leisure Agricultural | |
| Garden H.L. Liu | 546 |
| On Commonality and Particularity of Urban Pattern Features N.L. Jin | 550 |
| Cultural Town: Small Town Planning and Construction Based on Mongolian and Yuan | |
| Culture D.P. Liu and H.W. Wang | 556 |
| The New View on the Pattern of Rural Settlements C.J. Chen, Y.B. Zhou and Y.Z. Huang | 561 |
| City Context Character in Information Society G. Li and J.Z. Cao | 565 |
| Study on the Regulatory Detailed Planning in Mountainous Cities Z. Wang, T. Zheng and J. Xiong | 569 |
| Research on Integration of Modern Urban Street Space with Underground Space | |
| J.W. Zhao and H.L. Fu | 573 |
| Low Carbon-Oriented Methords for Urban Plan Based on Ecological Technologies H.B. Guo and X.Y. Fan | 577 |

| Ecological Footprint Model Parameters Revised Study Y. Li, T.T. Guo and Q.Y. Zhao | 582 |
|---|-------|
| Research on Space Development of the Harbin "Three Powers" Industrial Zone H.H. Song and B.H. Zhao | 587 |
| Study on the Secondary City, Spatial Expansion Model of Unifying Adjacent Cities C. Zhou | 591 |
| A Study on Appraisal System of Open Space Suitability of City Square in Luoyang D.S. Li, Y.F. Yan, L. Li and H.Y. Zhang | 596 |
| Study on Ecological Footprint Calculation of Beijing Urban Sewage / Industrial Wastewater Y. Li, T.T. Guo and P.P. Li | 602 |
| The Construction of Ecological Functions of Urban Open Space Y. Dong and W. Dong | 606 |
| Research on the Pedestrian Street System and its Ecological Strategies in the Urban Planning | |
| K.Z. Sun | 611 |
| Chapter 4: Ecological Architecture and Building Energy Saving Technology | |
| Design of the Low-Carbon and Ecological Kindergarten | |
| Y. Li and K. Xie | 617 |
| Seeking Feasible Low-Carbon Residential Design Strategies According to the Energy Consuming Sources of the Residential Construction C.Y. Liu | 624 |
| Research on Dual Buck Half Bridge Five-Level Inverter for Rooftop Solar System B.J. Ji, F. Hong, W.J. Ge and W. Yang | 628 |
| Evaluation on Leading Product of Energy Saving Wall Material T.Q. Ni, S.Y. Wang and H. Wang | 633 |
| Eco-Friendly Vernacular Rural Housing in Western China: a Case Study of a Reconstruction Project after 2008 Sichuan Earthquake H. Cheng, J.P. Liu, D. Wang, W. Zhou, R.R. Hu and D.L. Liu | 638 |
| Application of Energy Consumption Simulation in Envelope Energy-Saving Reconstruction of Existing Building | C 4.4 |
| Y.Q. Cui, R.H. Wei, C.L. Luo and J.K. Miao An Analysis of the Principle and Implementation Strategies of Ecological Architecture | 644 |
| Design X. Zhao | 650 |
| Mechanical and Durability Properties of Recycled Aggregate Concretes Containing Fly Ash Y.J. Mei, J.H. Wu and J.H. Zheng | 654 |
| Research of the British Residential Building Designs and Energy Conservation L. Wang | 660 |
| Study on Temperature Field and Thermal Stress for an Insulated Composite Wall F.L. Mei and G.L. Li | 664 |
| Experimental Study on Thermal Insulation Properties of Reinforced Concrete Composite Wall | |
| S.B. Zhao, S. Yang, L.S. Song, L. Sun and C.X. Song | 676 |
| The Efficiency Measures of Building Energy Conservation Z.B. Mo, S.T. Hu and L.Y. Gao | 680 |
| Chapter 5: Traditional Construction Materials | |
| Study of Crack Initiation and Propagation in Rock under Coupled Static and Dynamic Loads | |
| Z.Z. Zhang, F. Gao, Y. Cui and X.J. Shang | 687 |
| Influence of Wollastonite or Plant Fiber on Performance of Autoclaved Cement Concrete T.Q. Ni, L. Zhang and B. Yuan | 692 |

| Research on Effect of Mixture of Plasticizers on Cement Adaptability L.P. Cai and L. Guo | 696 |
|--|-------------|
| Chemical Corrosion Resistance of Concrete with Mineral Admixture Slurry in Artificial Seawater | |
| Y. Su, W.F. Zhu, W. Ding and X.Y. He | 701 |
| Experimental Study on Impact Resistance of CaCO ₃ Whisker-Reinforced Cement Mortar M.L. Cao, H. Yao and S.C. Cui | 706 |
| Cation Migration in Mortar with Different Volume Fractions of Aggregate Affected by Electric Field | 711 |
| W.T. Kuo, C.C. Liu and W.C. Wang | 711 |
| Experimental Study on Mechanical Properties of Axially Loaded PVC Tubed Short Concrete Columns J. Dong, D.P. Chen, J.M. Zhao, D.S. Shan, X.Y. Liu and G. Liu | 715 |
| Experimental Study on the Effects of Addition of Excessive Volume of Fly Ash on Concrete Properties | , 10 |
| H.Z. Quan and H. Kasami | 719 |
| The Damage Model of Concrete under Coupling Action of Calcium Leaching and Load Q.L. Liu, X. Zhang, L.N. Xu and L.Q. Jia | 723 |
| Study on Glass Transition and Interface Adhesive Ability of Asphalt Mortar L. Fan, Y.Z. Zhang and L. Wang | 728 |
| Preparation of Portland Cement with Pumice S.C. Cui, X.J. Lv and J. Liu | 733 |
| Influence of Lime Dust on the Pore Structure and Strength of Fly Ash-Cement Paste X.H. Wu, L.Z. Bai, C.K. Zhang and P. Yuan | 739 |
| Study on Impermeability Mechanism of Magnetic Water Concrete Y.X. Wang, X. Wang and Z.K. Yang | 745 |
| Influence of Stone Dust Content in Manufactured Sand on Chloride Diffusion Coefficient of | |
| C60 Grade Concrete P.P. Li, J.B. Xiong and Z.H. Fan | 749 |
| Difference Solution to Chloride Diffusion in Concrete A.P. Yu, H.B. Lu, Y.L. Zhao and K.Y. Wei | 754 |
| Effect of Mineral Admixtures and Water/Binder Ratios on the Resistance to the Chloride Ions Penetration into Concrete Y.J. Hu and Y.L. Du | 758 |
| Studies on Influence of Mineral Admixtures on High Performance Concrete Gas Permeability | |
| X.T. Zhang, K.N. Gao, X.C. Zhou and H.L. Wang | 762 |
| Mixed Composite Frostproof Pumping Agent Winter of Common Concrete Construction Quality Monitoring and Research | = 60 |
| M.R. Zhou, H.J. Zhang, Y. He, Z.F. Ding and X.Z. Luo | 768 |
| Experimental Study on Cementitious Property of Pumice J. Liu, X.J. Lv, M.L. Cao and S.C. Cui | 773 |
| Study on Thermal Dilation Coefficient of Fiber Concrete at early Stage Y.B. Lei and X.J. Cao | 777 |
| The Dynamic Mechanical Constitutive Equation of Concrete under High Temperture B. Jia, Z.L. Li, J.L. Tao and C.T. Zhang | 782 |
| Study on the Performance of Machine-Made Sand Concrete Combined Admixture of Limestone Powder and Substandard Fly Ash G.Q. Xu, L. Gao and H.X. Wang | 786 |
| Numerical Study on Tunnel Mechanics in Jointed Rock Mass with Finite Element Method | / 00 |
| M.G. Zhang, H.B. Wu, Z.P. He and T.Q. Zhou | 790 |
| Engineering Practice of Segmental Assembly in Large Spancurved Bridge by Scaffolds L.J. Yang Practice of Segmental Assembly in Large Spancurved Bridge by Scaffolds | 796 |
| Research on Saving Energy and Reducing Cost of the Higher Learning Institution Q.Y. Wang | 800 |
| The Additive of Concrete Material Study on the Impact of the Anti-Permeability L.M. Wang and J. Liang | 804 |

| A New High Temperature Resistant Glass-Ceramic Coating Material X.T. Chen, Y. Han, S.Y. Yao, W.W. Zhang, Y.S. Yao and Z.F. Wang | 810 |
|--|------------|
| Preparation and Properties of PS-OMMT/SBS Composite Modified Asphalt D.J. Zhou, N.F. Han and X.D. Tang | 815 |
| Chapter 6: Advanced Construction Materials | |
| Research on the Treatment for Water Damage to Widened Subgrade of Collapsible Loess Based on Centrifuge X.L. Weng, L.J. Zhang and W. Wang | 821 |
| The Properties of Concrete with Recycled Clay-Brick-Powder L. Zheng, Z. Ge, Z.Y. Yao, R.J. Sun and J.G. Dong | 826 |
| Research on Dynamic Instability of Irregularly-Shaped Arch Bridge Based on Catastrophe Theory | 922 |
| X.R. Yang, X.J. Shen, M. Zhong and J.X. Lan A Study on the Influencing Factors on the Dry-Shrinkage Performance of Phosphate Cement | 832 |
| C.P. Tang An Empirical Study on E-Commerce Channel Relationships: With the Help of | 838 |
| Interdependence Theory Y. Wang and X.F. Tang | 842 |
| Evaluation on Structural strength of Inland River Small Ships J. Zhang and Q. Yin Electronic Market Credit Risk Evaluation for Agricultural Products Based on Analytic | 848 |
| Hierarchy Process Y.Z. Li and D.H. He | 852 |
| Improve Journal Bearing Design Using Numerical Method N.J. Jiang, Y.L. Peng and F.L. Wu | 857 |
| Research on the Deformation Mechanism of Outlet High Slope of Some Hydropower Station Diversion Tunnel H.F. Deng, M. Zhu, J. Guo and T. Lu | 862 |
| Experimental Research on Osmotic Coefficient of Gangue Concrete J.M. Guo, S.Q. Song and L.L. Zhu | 866 |
| Anti-Seismic Analysis of Masonry-Reinforced Concrete Structure Based on LS-DYNA X.B. Liu and G.P. Chen | 870 |
| Determination of Compacting Temperatures of Rubberized Asphalt Mixtures Containing Warm Mix Asphalt Additives W.D. Cao, S.T. Liu and X.Z. Cui | 875 |
| Method for Determining Deep Ground Thermal Properties Based on Solid Cylindrical heat Source Model | |
| M.Z. Yu, X.F. Yu, L. Zhang and Z.H. Fang Application of High Density Polyethylene Pipe (HDPE) in Same Floor Drainage System J. Tang and P.P. Xu | 881 885 |
| Ø100mm SHPB Equipment and its Application Z.G. Zhang, M.S. Li, X.L. Wang, X.L. Zhong and Q. Li | 891 |
| Development of an Vehicular Test System on Vehicle $\mathbf{NO_x}$ Emission and Fuel Consumption J. Liu, X.P. Shi, J.J. Dong, H.Z. Wang and H.M. Yang | 896 |
| Effect of Internal Leakage on an Electro-Hydraulic Servo-Driven Control Valve Performance Y.D. Xie, Y.J. Liu and Y. Wang | 901 |
| Application of Automatic Assembly Technology Based on BRep on Inventor W.B. Yin, L.S. Wei and Q. Wei | 906 |
| Study on Large Wind Power Tower Structure Concept Optimization L.F. Shao and R.J. Zheng | 911 |
| Study on Removal of Uranium (VI) from Acid Leaching Uranium-Containing Wastewater by Modified CMC Polymer S.K. Zhou, G.M. Zeng and Y.J. Liu | 919 |
| D.13. 2004, O.11. 2015 und 1.0. 214 | 717 |

| Reinforcement Mechanism of Cement/Lime-Fly Ash Treated Sediments as Road Construction Materials | 00.4 |
|---|------|
| D.X. Wang, H.X. Wang and W.Z. Chen | 924 |
| Influence of the pH of Comb-Shaped Polymer Solutions on the Adsorption Between the Polymer and SO ₄ ²⁻ Ions G.R. Duan, G.H. Huang, X. Wang and Y. Gong | 928 |
| Properties and Safety Management about LNG Carrier Z.L. Jiao and C.X. Jiang | 934 |
| Finite Element Analysis of Stress Concentration Problems Based on Cosserat Continuum Model H.X. Tang and Y.H. Guan | 939 |
| Research on the Microscopic Characterization of Preparing Alpha-Hemi Hydrate Gypsum from FGD Gypsum at Atmospheric Pressure Y. Zhang, X.F. Li and W.X. Yin | 944 |
| Mechanical Properties on Thermosetting Epoxy Asphalt Waterproof Bond Material for Cement Concrete Pavement Based on Composite Structures Z.D. Qian, Y.Q. Wang and X. Song | 948 |
| Effect of Crumb Rubber Particle Size and Content on Properties of Crumb Rubber Modified (CRM) Asphalt | 055 |
| W.D. Cao, S.T. Liu, X.Z. Cui and X.Q. Yu Factors Affecting the Compressive Strength of Class C. Ely Ash Coopelymen | 955 |
| Factors Affecting the Compressive Strength of Class C Fly Ash Geopolymer X.Y. Li, E.Z. Zheng and C.L. Ma The Development and Implementation of Impressed Dynam Chang Constitutive Model in | 960 |
| The Development and Implementation of Improved Duncan-Chang Constitutive Model in ABAQUS Z.P. Dai, C. Zhao and C.F. Zhao | 965 |
| Performance Research of Strain Hardening Cementitious Composites (SHCC) under Uniaxial Tensile Load | |
| C.H. Hu, T.J. Zhao and T. Rong | 972 |
| Comprehensive Utilization of Sulfuric Acid Residue in Small Chemical Enterprise Z.W. Huang, R. Su, B. Yu and J. Sun | 977 |
| Research on the Relation between the Mechanical Parameter and Water Content about the Synthetic Geotechnical Simulation Material C.W. Liu, S.X. Liu and Y.H. Xu | 982 |
| Preparation and Humidity Controlling Behaviors of Diatomite/Polyacrylic Acid Composite J.H. Wang, S.P. Ren, M.L. Zhang and F. Dong | 988 |
| Behavior of HSC with Polypropylene Fibers after Exposure to High Temperatures R.Z. Yan, H.X. Du, H.F. Wang and Y. Wang | 994 |
| Study on Influence of Water Based Capillary Inorganic Water Proofer on Concrete Performance | 1000 |
| Y.J. Li and Y.L. Gong | 1000 |
| R&D on Wollastonite-Based Energy-Saving Construction Materials X.Y. Wang, X. Wu and Y.J. Li | 1005 |
| Fretting Corrosion Wear Behaviors of Steel Wires in Hoisting Ropes in Alkaline Condition H.T. Liu, D.K. Zhang, S.F. Cao, Y. Shen, X.H. Hou and L.M. Xu | 1014 |
| A Model to Predict Fatigue Life of Concrete Based on Total Strain Energy Density L. Zhang, S.C. Gong and X.D. Ma | 1018 |
| Impact Dynamics Analysis of Shed Tunnel Structure Hit by Collapse Rock-Fall L. Yang, S.M. Li, D.H. Chen and Z.M. Wu | 1023 |
| Study on Performance of High-Performance Concrete Made with Fly Ash and Polypropylene Fiber L.F. Zhang and R.Y. Wang | 1027 |
| Correlation Between Bentonite's Cation Exchange Capacity (CEC), Activated Clay Quality Indexes and Activation Strength X.D. Liu and X.J. Lu | 1031 |
| Effect of Nano Calcium Carbonate and Montmorillonite on Properties of Styrene-Butadiene-Styrene Copolymer Modified Asphalt | |
| N.F. Han, D.J. Zhou and X.D. Tang | 1035 |
| Analysis of Mechanical Behavior of Fine Sand Filling Embankment H.X. Zhang, G.L. Meng and Y.J. Lv | 1039 |

| The Comprehensive Study about Fireproof and Single Insulation Walls for Cold Regions W.Z. Cao, H.Z. Wang and Q.X. Sun | 1043 |
|--|------|
| Crystallization Kinetics of the Cu _{47.5} Zr _{47.5} Al ₅ Bulk Metallic Glass under Continuous and Iso-Thermal Heating | 1052 |
| C.X. Hu, G.L. Li and Y. Shi Dynamics of a Supported Cylinder in Axial Flow | 1052 |
| J.Ď. Jin, N. Li and Ž.H. Qin | 1059 |
| Effect Factors of Air Flotation Treating Micropolluted Source Water in South China G.Q. Gao | 1063 |
| Vibration-Based Damage Detection of Pipeline System by HHT Method C.X. Bao, H. Hao and Z.X. Li | 1067 |
| Discussion of Processing Method for the Nondestructive Detection of Concrete Prestress Truss S.J. Chen, J. Cai, B. Xiong and W. Li | 1073 |
| Cationic Counter-Ions as the Controlling Regulation for the Equilibrium Size of POMs in | 1073 |
| Solutions X.F. Jia, X.W. Shi and Y.S. Ma | 1078 |
| Effect Analysis of Double-Line Parallel Shield Tunnel Crossing Frame Structure Building | 10,0 |
| Based on GTS G. Wei, Q.G. Guo and J. Hong | 1082 |
| Study of Feasibility of Heat Melt Adhesive Being Used in Crack Self-Healing of Cement- | |
| Based Materials X.Z. Yuan, W. Sun and X.B. Zuo | 1087 |
| Capture of Toluene Vapors Using Adsorption and Microwave Irradiation Regeneration X.Q. Cao, S.R. Liu and X.M. Huang | 1092 |
| Analysis of Water Permeability and Retention and Mechanical Properties of the Drainage Base Course with Asphalt Treated Gravels X.R. Meng, X.M. Dong and X.S. Wang | 1096 |
| A Brief Research on Application of Virtual Reality Technology in the Mass Concrete | |
| Temperature Control S.W. Liu, Q. Wei, H. Jiang and S.J. Li | 1100 |
| Particle Flow Simulation for Large Diameter Squat Silos Eccentric Discharge F. Yuan, C.Y. Dong, Y.H. Song and S.S. Zhang | 1106 |
| Green Concrete for Sustainable Life-Cycle C.L. Hwang, F.M.F. Sihotang, L.A.T. Bui and C.T. Chen | 1113 |
| Study and Application of Plastic Construction Materials M.O. Xue | 1117 |
| Density Changes and their Impact on Sustainable Recreational Travel to Parks in Large Chinese Cities: Shanghai Case | |
| T.Q. Luo, W.M. Li and K.C. Hanna | 1121 |
| Analysis on Thermal Characteristics of Phase Change Roof and Insulation Roof G.Z. Wu, Y. Zhao, J. Wang and D. Li | 1128 |
| Study on Action Mechanism of Polyvinyl Alcohol Polymers in High Performance Cement-Based Composites | 110= |
| D. Lin and \overline{Z} . Y. Wen Monitoring of Deformation Laws of Deep Excavation in Metro Station | 1137 |
| Q.Y. Li | 1141 |
| Study on the Seepage Law for Gas Storage in Bedded Salt Rock Caverns P. Qi and Z.R. Mei | 1146 |
| Apply Fuzzy Factor Analysis in Aviation Ground Staff Occupational Stress Indicator Classify | |
| K.S. Sun and C.T. Hung | 1151 |
| Microorganism Precipitation in Enhancing Concrete Properties H. Afifudin, M.S. Hamidah, H. Noor Hana and K. Kamaruddin | 1157 |
| Stability and Safety Analysis of Braced Excavation for Subway Station during Construction under the Condition of Side Slope | |
| Y.H. Li, P. Liu, J.Q. Liu and X.F. Han | 1166 |
| Research on Performance of Green Light Aggregate Six Hole Brick H.X. Qiao, L. Hua, Z.M. He and J.M. Dong | 1171 |

| The Application of Structural Engineering with 3DS MaxScript L.S. Wei, K. Sun, J.H. Zhang and Q. Wei | 1175 |
|---|-------|
| Static Model Test on Fly Ash Embankment of Expressway Y.H. Ge, W. Cui and W.J. Wang | 1182 |
| Application and Research on Material Properties of Sand Consolidating Agent S.G. Li, W. Zhao, D. Wu and Y.P. Li | 1186 |
| Study of Mechanical Properties of Reactive Powder Concrete with Additives Z.G. Yin and X.D. Huang | 1191 |
| Application of Rare Earth Elements for Water Source Discrimination in Renlou Coal Mine, Northern Anhui Province, China L.H. Sun | 1195 |
| Micron Fly Ash/SBS Modified Bitumen: Preparation and Aging Property D.J. Zhou and N.F. Han | 1199 |
| Theoretical Analysis and Research of Large Diameter Silos R.T. Ma and Y.F. Meng | 1203 |
| Analytic Model for Rock Pressure of Circular Opening under High Ground Stress W.P. Li, D.R. Wang, B. Zhou and Y.H. Qian | 1209 |
| A Primitive Blocking Study of Reserves' Graphs Using Computer-Aided Design Z.Q. Meng, H.G. Ji and H.X. Liu | 1214 |
| A Network Security Situation Awareness Model Based on Artificial Immune R.R. Zhang and X. Xiao | 1218 |
| Effect of Admixture on the Frost Resistance of Steam-Curing Concrete H.F. Liu, X.W. Ma and F.J. Huang | 1222 |
| Nonlinear Dynamics Analysis on Super Low Noise Mining System X.J. Liu, S.X. Zhang, L.X. Xu, S.J. Hou and B. Huo | 1228 |
| Mechanics Performance of High-Performance Concrete with Polypropylene Fibers H.X. Du, Y.X. Qin, W. Zhang, N. Zhang and X.Y. Hao | 1233 |
| Numerical Analysis of the Pit Excavation Influence on Foundation Piles S.L. Feng, H.F. Jin, J. Li and P.L. Li | 1239 |
| Research on the Performance of Asphalt Modified by SBS Rubber and Carbon Nanotube L. Sun, H. Guan and Q. Ge | 1243 |
| Glass Fiber Reinforced-Polymer (GFRP) Bar Reinforced Concrete Deck Slab: Strength and Serviceability | 10.47 |
| J.W. Huang Sustained Load Effect on GFRP Bar Reinforced Concrete Deck | 1247 |
| J.W. Huang Multi-Object Resonant Response Equivalent Static Wind Load of Large-Span Roofs | 1251 |
| Y.X. Li, Q.S. Yang and Y.J. Tian A Study on the Side Effect of the Development of Chinese Real Estate | 1255 |
| C.M. Liu and Z.Q. Wang Strength and Durability of High Performance Road Concrete Containing Ultra-Fine Fly | 1259 |
| Ash Y.J. Li, Y.L. Gong and J. Yin | 1264 |
| Software Development of Large-Span Structure Hoisting on the Time-Varying Analysis X.Y. Jiang, H.Y. Wan and J.G. Wang | 1269 |
| Critical Analysis of Recycled Aggregate and Concrete with Recycled Aggregate N. Deshpande and S.S. Kulkarni | 1274 |
| Chapter 7: Other Related Topics | |
| The Minimum Information List of Reconstruction Traffic Accident by 3 Dimension Animation | |
| A. Wang, L.Y. Cheng, Z.H. Chu and M.D. Wu Study on the Field Dynamics of the Seal Cavity Flow Field for High Parameters Bellows | 1283 |
| Mechanical Seal W.A. Meng, M. Ahmat, N. Yusup and A. Shavkat | 1287 |

| Preparation and Structural Determination of Anhydrous Calcium Sulphate Crystal Whisker Material X.S. Tai | 1293 |
|---|------|
| The Exploring for the Concept of History and Culture on City Square Design - Exampled by Lanzhou City X.W. Meng, M.H. Ye, H. Zhang and Q. Zhou | 1297 |
| The Influence of Urban Ecological Environment on Funeral Building Environment as Landscape Patches B. Li | 1302 |
| Preparation, Characterization and Photocatalytic Preoperty of BiVO ₄ Photocatalyst by Sol-Gel Method M. Wang, Q. Liu and H.Y. Luan | 1307 |
| Research on the Relationship between the Drilling Cutting Gas Desorption Index h ₂ and Parameters of Gas Occurrence J.L. Gao and Y. Wang | 1312 |
| The Determination of Totall Station's Additive Constant with Triangle Method X.G. Deng, G.H. Pei and Z.T. Zheng | 1319 |
| Ponder on the Evaluation for the Implementation Effect of Mining Remote Sensing Monitoring J.S. Zhou, J.Y. Niu, R.B. Zhu and Y.Y. Yao | 1325 |
| Study on the Campus Public Art under the Influence of Taoist Aesthetics Z. Zhen, K. Jin, X. Zhen and M. Meng | 1331 |
| Research on Control Network of LED Public Lighting and Integration Technology of Managerment and Control J.B. Yang, R. Wang and D.Q. Wei | 1335 |
| Research for NO _x Emission of Nanjing Vehicle Based on IVE Model J. Liu, J.J. Dong, X.P. Shi, H.Z. Wang and H.M. Yang | 1341 |
| Study of the Key Technologies of Virtual Architecture System Implementation Z.B. Bi and H.Q. Wang | 1346 |
| Research of the Differences on Subjective Evaluation of Environment between Professional Personnel and Unprofessional Personnel Y.N. Yang, H. Li and F. Xiang | 1352 |
| Study on Improvement of Simulation Model of Fully Mechanized Top-Coal Caving Z.L. Yu | 1356 |
| Study on Manufacture of Short Mullite Fibers by Andalusite Mineral of Mei County China Z.W. Shi and N.S. Xie | 1361 |
| The Performance and Mechanism of Waste Tire Crumb Rubber Modified Asphalt Y.C. Li, P. Zhang and R. Lv | 1365 |