

程站起简介

姓名	程站起	性别	男	出生年月	1973年2月	
职称	教授	民族	汉	籍贯	河南西华	
电子邮箱	zqcheng@zzu.edu.cn		最终学位			
学术头衔	河南省教育厅学术技术带头人, 河南省高等学校青年骨干教师					
研究方向	新型复合材料结构一体化设计, 建筑材料与结构的3D打印					
主要学习、科研和工作经历	<p>学习经历:</p> <p>2003.03-2006.06 同济大学 固体力学专业 工学博士学位 1996.09-1999.06 华中理工大学 固体力学专业 工学硕士学位 1990.09-1994.06 华中理工大学 工程力学专业 学士学位</p> <p>工作经历</p> <p>2022.06 至今 郑州大学, 黄河实验室 教授 1999.07-2022.05, 郑州大学, 土木工程学院, 助教、讲师、副教授、教授 1994.07-1996.08, 沈阳水泵厂, 研究所, 助理工程师 2019.07-2020.07, 加拿大女王大学, 机械与材料工程系, 访问学者 2013.12-2014.12, 美国内布拉斯加林肯大学, 机械与材料工程系, 访问学者 2008.05-2009.05, 加拿大多伦多大学 博士后</p>					
代表性教学成果与教学荣誉	<p>指导的研究生有4人获得研究生国家奖学金 指导2名研究生的学位论文分别于2018, 2019年获评为郑州大学优秀</p>					

代表性	<p>1、主持科研项目</p> <p>2、国家自然科学基金委员会, 面上项目, 11872339, 基于近场动力学的超高韧性水泥基复合材料动态失效的多尺度模拟及验证, 2019-01-01 至 2022-12-31, 63 万元, 在研。</p> <p>3、国家自然科学基金委员会, 面上项目, 11472248, 基于微极理论的功能梯度材料细观力学模型及相关实验研究, 2015-01-01 至 2018-12-31, 88 万元, 已结题。</p> <p>4、国家重大科技专项“水专项”子课题: 河南受水区沿线城镇水源水质风险分析与削减技术研究 2012-01-01 至 2016-12-31, 100 万元, 已结题。</p> <p>5、河南省自然科学基金, 面上项目, 182300410221, 冲击与疲劳载荷作用下超高韧性水泥基复合材料 PD 建模分析, 2018.01-01 至 2019-12-31, 10 万元, 已结题。</p> <p>6、国家自然科学基金委员会, 青年基金, 10802078, 任意梯度分布粘弹性梯度材料热力耦合破坏行为研究 2009.01-01 至 2011-12-31, 金额 25 万, 已结题。</p>
科研成	<p>2、代表性论文、论著、专利</p> <p>1、Wu Y, Zhou JJ, Tang, JY, Yuan CF, Cheng ZQ. A Peridynamic Model for Dynamic Fracture of Layered Engineered Cementitious Composites. <i>Acta Mechanica Solida Sinica</i>, 2022, (已录用).</p> <p>2、Cheng ZQ, Wu Y, Chu LS, Tang, JY, Yuan CF, Feng H. Dynamic Fracture Simulation of Functionally Graded Engineered Cementitious Composite Structures Based on Peridynamics. <i>Acta Mechanica Solida Sinica</i>, 2022, 35 (1), 79-89.</p> <p>3、Feng H, Li L, Wang WQ, Cheng ZQ, Gao DY. Mechanical properties of high ductility hybrid fibres reinforced magnesium phosphate cement-based composites. <i>Composite Structures</i>, 2022, 115219.</p> <p>4、Feng H, Zhu P, Guo AF, Cheng ZQ, Zhao X, Gao DY. Assessment of the mechanical properties and water stability of nano-Al₂O₃ modified high ductility magnesium potassium phosphate cement-based composites. <i>Materials Today Communications</i>, 2022, 103179.</p> <p>5、Cheng ZQ, Hu YY, Chu LS, Yuan CF, Feng H. Peridynamic modeling of engineered cementitious composite with fiber effects. <i>Engineering Fracture Mechanics</i>, 2021, 245, 107601.</p> <p>6、Liang Y, Yan JL, Qian WX, Cheng ZQ, Chen H. Analysis of collapse resistance of offshore rigid frame-Continuous girder bridge based on time-varying fragility. <i>Marine Structures</i>, 2021, 75, 102844.</p> <p>7、Liang Y, Yan JL, Cheng ZQ, Chen P, Ren C. Time-varying seismic fragility analysis of offshore bridges with continuous rigid-frame girder under main aftershock sequences. <i>Journal of Bridge Engineering</i>, 2020, 25 (8), 04020055.</p> <p>8、Cheng ZQ, Fu ZQ, Zhang Y, Wu HX. A peridynamic model for analyzing fracture behavior of functionally graded materials used as an interlayer. <i>Acta Mechanica Solida Sinica</i>, 2020, 33 (6), 781-792.</p> <p>9、Chu LS, He YX, Li DD, Ma X, Cheng ZQ. Structural performance of reinforced concrete wall with boundary columns under shear load. <i>Structural Engineering and Mechanics</i>, 2020, 76 (4), 479-489.</p> <p>10、Cheng ZQ, Sui ZB, Yin H, Yuan CF, Chu LS. Studies of dynamic fracture in functionally graded materials using peridynamic modeling with composite</p>

weighted bond. *Theoretical and Applied Fracture Mechanics*, 2019, 103, 102242.

- 11、 Liang Y, Yan JL, Cheng ZQ, Chen H, Mao R. Seismic fragility analysis of long-span bridge system with durability degradation. *CMES-Computer Modeling in Engineering & Sciences*, 2019, 121, 177-214.
- 12、 Cheng ZQ, Jin DD, Yuan CF, Li L. Dynamic fracture analysis of functionally gradient materials with two cracks by peridynamic modeling. *CMES-Computer Modeling in Engineering & Sciences*, 2019, 121 (2), 445-464.
- 13、 Cheng ZQ, Sui ZB, Yin H, Feng H. Numerical simulation of dynamic fracture in functionally graded materials using peridynamic modeling with composite weighted bonds. *Engineering Analysis with Boundary Elements* 2019, 105, 31-46.
- 14、 Cheng ZQ, Wang ZY, Luo ZT. Dynamic crack propagation and branching in shale materials by peridynamic method. *CMES-Computer Modeling in Engineering & Sciences*, 2019, 118(3):509-527
- 15、 Zhang Y, Cheng ZQ, Feng H. Dynamic fracture analysis of functionally gradient material coating based on the peridynamic method. *Coatings*, 2019, 9, 62; doi:10.3390/coatings9010062.
- 16、 Fan SY, Cheng ZQ. A micropolar model for elastic properties in functionally graded materials. *Advances in Mechanical Engineering*, 2018, 10(8): 1-9.
- 17、 Cheng ZQ, Liu YK, Zhao J, Feng H, Wu YZ. Numerical simulation of crack propagation and branching in functionally graded materials using peridynamic modeling. *Engineering Fracture Mechanics*, 2018, 191: 13-32.
- 18、 Cheng ZQ, Zhang GF, Wang YN, Bobaru F. A Peridynamic model for dynamic fracture in functionally graded materials. *Composite Structures*, 2015, 133:529-546.
- 19、 Li HY, Zhang XT, Cheng ZQ, Gao DY, Zhong Z. Analysis of two dissimilar functionally graded strips containing interface crack under plane deformation. *ActaMechanicaSolidaSinica*, 2013, 26(1):34-45.
- 20、 Cheng ZQ, Gao DY, Zhong Z. Interface crack of two dissimilar bonded functionally graded strips with arbitrary distributed properties under plane deformations. *International Journal of Mechanical Sciences*, 2012,54:287-293.
- 21、 Cheng ZQ, Gao DY, Zhong Z. A moving interface crack between two dissimilar functionally graded strips under plane deformations with integral equation methods. *Engineering Analysis with Boundary Elements*, 2012,36:267-273.
- 22、 Cheng ZQ, Gao DY, Zhong Z. Crack propagating in functionally graded coating with arbitrarily distributed material properties bonded to homogeneous substrate. *Acta Mechanica Solida Sinica*, 2010,23:437-446.
- 23、 Cheng ZQ, Meguid S., Zhong Z. Thermo-mechanical behavior of a viscoelastic FGMs coating containing an interface crack. *International Journal of Fracture*, 2010,164:15-29.
- 24、 Meguid S, Wernik JM, Cheng ZQ. Atomistic-based continuum representation of the effective properties of nano-reinforced epoxies. *International Journal of Solids and Structures*, 2010, 47:1723-1736.
- 25、 Zhong Z, Cheng ZQ. Fracture analysis of a functionally graded strip with arbitrary distributed material properties. *International Journal of solids and structures* 2008, 45(13):3711-3725.
- 26、 Cheng ZQ, Zhong Z. Fracture analysis of functionally graded interfacial zone between two dissimilar homogeneous materials. *Science in China series G* 2006, vol. 49(5): 540-552.

<p>果与科</p> <p>研奖励</p>	<p>27、 Cheng ZQ, Zhong Z. Fracture analysis of a functionally graded strip under plane deformation. ActaMechanicaSolidaSinica2006, 19(2): 114-121.</p> <p>28、 Cheng ZQ, Zhong Z. Analysis of a moving crack in a functionally graded strip between two homogeneous layers. International Journal of Mechanical Science 2007, 49(9):1038-1046.</p> <p>29、 一种用于防辐射砂浆、混凝土的重构铬渣粉及制备、应用；罗忠涛;程站起;白召军;张茂亮;张海涛;赵军;张美香;王振华； 专利号： CN 108439836 B</p> <p>30、 一种超高韧性废弃砖矸再生混合料及其制备方法和应用；元成方;程站起;楚留声;随志博;赫约西;郭稼祥;顺天； 专利号： CN 111018437 A</p> <p>3、 科研奖励</p> <p>1. 钢纤维混凝土力学性能分析， 2016年河南省科技进步二等奖， 第四。</p> <p>2. 梯度材料破坏理论及其在混凝土材料与结构性能提升中的应用， 2019年河南省教育厅科技成果一等奖， 第一。</p>
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