LIST OF PUBLICATIONS

Faculty: Dr GVP Bhagath Singh

Department of Civil Engineering

JOURNAL PUBLICATIONS

G.V.P. Bhagath Singh and K.L. Scrivener, (2022). "Understanding the phase formation, microstructure and mechanical properties of LC 3 based autoclaved aerated blocks," ***Construction and Building Materials***, 344, 128198.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2020). "Efficient Production of Alkali-activated Geopolymers using Low-calcium Fly ash," ***Indian Concrete Journal***, 94(7), 1-7.

G.V.P. Bhagath Singh C. Sonat, Y. En-Hua and C. Unluer (2020). "Performance of MgO and MgO-SiO 2 systems containing seeds under different curing conditions," ***Cement and Concrete Composites***,108, 103543.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2020). "Evaluation of total reactive oxide ratios and working solution ratios on strength development in fly ash based geopolymers," ***Journal of Materials in Civil Engineering (ASCE)***, 32(4), 04020051(1-8).

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2019). "Production and Characterization of Low-Energy Portland Composite Cement from Post-Industrial Waste," ***Journal of Cleaner Production***, 239, 118024.

Birinchi Panda, N.A.N Mohamed, S.C. Paul, **G.V.P. Bhagath Singh**, Ming Jen Tan and Branko Savija, (2019). "The effect of material fresh properties and process parameters on buildability and inter-layer adhesion of 3D printed concrete," ***Materials***, 12, 2149.

Biranchi Panda, **G.V.P. Bhagath Singh**, Cise Unluer and Ming Jen Tan, (2019). Development of one-part geopolymers for 3D concrete printing," ***Journal of Cleaner Production***, 220, 610-619.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2019). "Influence of Processing Temperature on the Reaction Product and Strength Gain in Alkali-activated Fly ash," ***Cement and Concrete Composites***, 95,10-18.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2019). "Effect of Active Components on Strength Development in Alkali-Activated Low Calcium Fly ash Cements," ***Journal of Sustainable Cement Based Materials***, 8,1-19.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2018). "Characterization of Indian fly ashes using different experimental Techniques," ***Indian Concrete Journal***, 92, 10-23.

G.V.P. Bhagath Singh, C.H. Subrahmanyam and K.V.L. Subramaniam (2018). "Dissolution of glassy phase in low calcium fly ash during alkaline activation," ***Advances in Cement Research***, 30, 313-322.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2017). "Evaluation of sodium content and Sodium hydroxide molarity on compressive strength of alkali activated low calcium fly ash," ***Cement and Concrete Composites***, 81, 122-132.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2017). "Method for Direct Determination of Glassy Phase Dissolution in Hydrating Fly ash-Cement System Using X-ray Diffraction," ***Journal of American Ceramic Society***, 100, 403-412.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2017). "Direct decomposition X-ray diffraction method for amorphous phase quantification and glassy phase determination in binary blends of siliceous fly ash and hydrated cement," ***Journal of Sustainable Cement Based Materials***, 6, 111-125.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2016). "Quantitative XRD Analysis of Binary Blends of Siliceous Fly ash and Hydrated Cement," ***Journal of Material in Civil Engineering (ASCE)***, 28, 04016042 (1-7).

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2016). "Quantitative XRD study of amorphous phase in alkali activated low calcium siliceous fly ash," ***Construction and Building Materials***, 124, 139-147.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2016). "Influence of Temperature and added lime on the glassy phase dissolution in low calcium fly ash binary blend," ***Journal of Advanced Concrete Technology***, 4, 357-367.

G.V. P. Bhagath Singh and K.V.L. Subramaniam, (2014). "Activation of siliceous fly ash at very high levels of cement replacement," ***Indian Concrete Journal***, 88, 23-32.

CONFERENCE PROCEEDINGS

G.V.P. Bhagath Singh and K.L. Scrivener, (2019). "Performance of limestone calcined clay cement (LC3) based lightweight blocks," 3rd International Conference on Calcined Clays for Sustainable Concrete, New Delhi, India. Oct 15-17.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2019). "Working solution ratios verses total reactive oxide ratios on strength development in alkali activated low calcium fly ash," 15th International Congress on the Chemistry of Cement (ICCC 2019), Prague, Sep 16-20

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2019). "Estimation of fly ash reactivity and dissolution characteristics," Futuristic Approaches in Civil Engineering (FACE), Hyderabad, India. Aug 30-31.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2018). "Optimum reactive ratios to produce an Aluminosilicate binder from activated low calcium fly ash," 3rd International ACI India Chapter conference on Advances in Science & Technology of Concrete, Mumbai, India. Dec 14-15.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2017). "Effective Utilization of fly ash for different applications," 15th NCB International Seminar, New Delhi, India, Dec 5-8.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2017). "The Influence of Curing Temperature and Curing Period on strength development in High volume fly ash concrete," RILEM Week & ICACMS-17, IIT Madras, Chennai, India, September 3-8.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2017). "Role of Reactive Alumina and reactive oxide ratios on strength development in alkaline activation of low calcium fly ash," RILEM Week & ICACMS-17, IIT Madras, Chennai, India, September 3-8.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2017). "Role of total reactive oxide ratios on strength development in activated fly ash," ASCMCES-17, Sharjah, United Arab Emirates, April 18-20.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2015). "Concrete using Siliceous Fly ash at very High Levels of Cement Replacement: Influence of Lime Content and Temperature," 2nd International ACI India Chapter conference on Advances in Concrete, Mumbai, India. Dec 18-19.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2015). "Production of Low Energy Binders Using High Levels of Cement Replacement with Fly Ash," 14th NCB International Seminar, New Delhi, India, Dec 1-4.

G.V.P. Bhagath Singh and K.V.L. Subramaniam, (2015). "Lime Activation of Siliceous Fly Ash at Very High Levels of Cement Replacement," The fifth International Conference on Construction Materials: Performances, Innovations and structural Implications (CONMAT'15), Whistler, Canada, Aug 19-21

BOOK CHAPTERS

G.V.P. Bhagath Singh, K L Scrivener. (2020). "Performance of Limestone Calcined Clay Cement (LC 3)-Based Lightweight", Calcined Clays for Sustainable Concrete, RILEM Book series, vol 25. Springer, Singapore. https://doi.org/10.1007/978-981-15- 2806-4_94

G.V.P. Bhagath SinghK V L Subramaniam. (2020). "Estimation of Fly Ash Reactivity and Dissolution Characteristics", Advances in Structural Engineering, vol 74, Springer, Singapore. https://doi.org/10.1007/978-981-15-4079-0_6.

PROJECTS

Sl.no	Title & Role	Funding Agency	Year	Budget	Status
1.	Production of low-cost and high-performance fly ash-based lightweight blocks **Principal Investigator**	**SERB-SRG,** Government of India	2021-2023 (SERB-SRG/2021/000540)	20 Lakhs	Ongoing