



## Dr. Sudeep Kumar Patel – Ph. D.

**Name** : Sudeep Kumar Patel  
**Designation** : Senior Assistant Professor  
**Department** : Civil Engineering  
(JOINED THE INSTITUTE IN 2013)  
**Contact** : +919437083810 (M)  
**Email** : sudeep.patel@silicon.ac.in

### RESEARCH INTERESTS

- Light weight concrete
- Waste utilization
- Environmental Sustainability

### Academic Qualifications

- Ph. D. (Civil Engineering, VSSUT, Burla, Odisha, India)
- M. Tech. (Structural Engineering) VSSUT, Burla, Odisha, India)

### Teaching Experience/Industrial Experience/Research Experience

Teaching Experience – 25 years+

Research Experience – 7 years

## PUBLICATIONS

### JOURNALS

1. **Patel, S. K.;** Majhi, R.K.; Satpathy, H.P.; Nayak, A.N. (2019) Durability and microstructural properties of light weight concrete manufactured with fly ash cenosphere and sintered fly ash aggregate. *Constr. Build. Mater, Elsevier (SCIE & Scopus, IF.-6.141)*, 226, 579-590. <https://doi.org/10.1016/j.conbuildmat.2019.07.304>
2. **Patel, S.K.;** Satpathy, H.P.; Nayak, A.N.; Mohanty C. R. (2020) Utilization of fly ash cenosphere for production of sustainable lightweight concrete. *J. Inst. Eng. India Ser. A, Springer (Scopus)*, 101, 179–194. <https://doi.org/10.1007/s40030-019-00415-6>
3. Satpathy, H. P.; **Patel, S. K.;** Nayak, A. N. (2019) Development of sustainable lightweight concrete using fly ash cenosphere and sintered fly ash aggregate. *Constr. Build. Mater, Elsevier (SCIE & Scopus, IF.-6.141)*, 202, 636-655. <https://doi.org/10.1016/j.conbuildmat.2019.01.034>
4. Majhi, R.K.; **Patel, S. K.;** Nayak, A.N. (2021) Sustainable structural lightweight concrete utilizing high-volume fly ash cenosphere. *Advances in concrete construction, (SCIE & Scopus, IF-3.214)*, 12(3), 257-270. <https://doi.org/10.12989/acc.2021.12.3.257>
5. Chanda, S S.; **Patel, S. K.;** Nayak, A.N.; Mohanty C. R. (2023) Performance evaluation on bond, durability, micro-structure, cost effectiveness and environmental impacts of fly ash cenosphere based structural lightweight concrete, *Constr. Build. Mater, Elsevier (SCIE & Scopus,IF.-7.14)*,132429. <https://doi.org/https://doi.org/10.1016/j.conbuildmat.2023.132429>.

**BOOK CHAPTERS**

1. **Patel, S. K.**, & Nayak, A. N. (2021). Study on specific compressive strength of concrete with fly ash cenosphere. In *Recent Developments in Sustainable Infrastructure* (pp. 561-572). Springer, Singapore.
2. Nain, Z., Nayak, B. P., & **Patel, S. K.** (2022). Effect of Mechanical and Chemical Activation of Fly Ash on the Properties of Fly Ash Bricks. In *Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management* (pp. 139-148). Springer, Singapore.

**CONFERENCE PAPERS PRESENTED**

3. **Patel, S. K.**; Nayak, A. N. (2019) Study on specific compressive strength of concrete with fly ash cenosphere. *International Conference on Recent Development in Sustainable Infrastructure (ICRDSI-2019)*, Springer, KIIT, University, Bhubaneswar, India.
4. **Patel, S. K.**; Nayak, A. N.; Mohanty, C. R. (2019). Hardened Properties of Concrete with fly ash cenosphere as fine aggregate. *National Conference on Civil Engineering and Urban Planning for Sustainable Development (CUPSD-2019)*, DRIEMS, Cuttack.
5. Nain, Z ; Nayak B. P.; **Patel S. K.** (2020). Effect of Mechanical and Chemical Activation of Fly Ash, *International Conference On Recent Developments In Sustainable Infrastructure: Research & Practices (ICRDSI 2020)*, KIIT, University, Bhubaneswar, India.
6. **Patel, S. K.**; Mohanty, C. R. ; Nayak, A. N. (2021). Application of Fly Ash Cenosphere in Cement Composites: A Comprehensive Review, *36th National Convention of Civil Engineers and National Conference on the theme Innovation, Mechanization and Modern Techniques in Civil Engineering*, Jharkhand State Centre, The Institution of Engineers (India).