Curriculum Vitae

Brief Profile:

Dr. Karthikeyan Jayakumar was born on 12.12.1980 at Coimbatore, INDIA. He graduated his B.E. (Civil Engineering) from Kumaraguru College of Technology-Coimbatore during the year 2002, M.E. in Structural Engineering from V.L.B. Janakiammal College of Engineering and Technology-Coimbatore during the year April 2004 and Ph.D. in Structural Engineering from IIT-Roorkee in the year November 2008. He started his career as an Asst. Professor in the Department of Civil Engineering, NIT-Trichy, India from February 2009. His research interests include High Performance concrete materials, High Performance Prestressed Concrete Bridges and Forensic Engineering & Rehabilitation of Structures. He is an active member in various professional bodies related to structural engineering & materials. He has secured the Young Faculty award, awarded by Venus International Foundation, Chennai, July 2015. He was awarded twice for the International Travel Grant Scheme for Young Scientist awarded by SERB-DST, New Delhi during August 2011 and September 2015. He won a National Award for the Innovative Students Best Project Award at Bachelors Level awarded by Indian National Academy of Engineers, NewDelhi. He has been awarded as the Best Outstanding and Best Outgoing Student during his undergraduate and postgraduate study. He has presented 27 Technical papers during his UG and PG studies in the students symposium/events conducted by various institutes and won many prizes. He has been to USA, Canada, Europe(France, Switzerland & Czech Republic), New Zealand and Sri Lanka: presented technical papers, visited various universities and professional bodies related towards his profession. He has published nearly 90 Research Papers in credit [in various Journals and International Conferences]. He has a patent, which was granted on April 2018. He has Published 6 Book Chapters related to his research field.

National Institute of Technology, Tiruchirappalli:
Performa for CV of Faculty/ Staff Members

1. Name J KARTHIKEYAN
2. Designation: Associate Professor
3. Office Address: C-10 Department of Civil Engg.
4. Telephone (Direct) (Optional): 0431-2503176
   Mobile (Optional): 9487359908
5. Email (Primary): jk@nitt.edu Email (Secondary) :
6. Field(s) of Specialization: Concrete Materials, Forensic Eng. & Repair & Rehabilitation of Structures
7. Employment Profile

Job Title	Employer	From	To
Associate Professor	NIT-Trichy	12March2018	Till now
Assistant Professor	NIT-Trichy	23 Feb 2009	12March2018

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	IIT-Roorkee	2008		
M.E.	Anna University	2004	I class	1834/2300
B.E.	Bharathiyar Univ	2002	I class	3789/4700
12th STD	St.Pauls MHSS-Coimbatore	1998	I class	1006/1200
10th STD	St.Pauls MHSS-Coimbatore	1996	I class	850/1100

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Co-ordinator CTM	Civil Engineering	March2018	Till now
Faculty Advisor	Builders Hive Club	August2017	July2021
Co-ordinator	M.Tech. Structural Engg	March2018	5Feb2019
Lab-in-Charge	Structural Engg	March2018	5Feb2019

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
Member, BoS	Rayalaseema University,Kurnool	April 2019	Till now
Member, BoS	Paavai Coll of Engg(Autonomous)	June 2018	Till now

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2022	Chartered Engineer (India)	IE (India)
2015	Young Faculty Award	Venus International foundation
2011,2015	Intl. Travel grant for Young Scientists	SERB-NewDelhi
2004	Best Out going PG Student	VLBJACET, Coimbatore
2002	Best Outstanding UG Student	KCT, Coimbatore
2002	Innovative Students potential for Best Project award at Bachelors level	INAE, NewDelhi

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
2004-2008	Institute Fellowship for Ph.D. research work at IIT-Roorkee	MHRD, New Delhi	July 2004	July 2008

13. Details of Academic Work

(i) Curriculum Development – Offered a new elective subject for 6th Semester B.Tech. Programme CEPE42 Heritage Structures w.e.f. Jan 2022
Prepared revised curriculum and syllabus for M.Tech. CTM Programme

(ii) Courses taught at Postgraduate and Undergraduate levels
For UG – CEPC14 Concrete Technology & CEPE42 Heritage Structures
For PG – CE680/CE763 Advanced Concrete Technology & CE678/CE766 Forensic Engg. & Rehabilitation of Structures

(iii)Projects guided at Postgraduate level

(i) Shaheer Ali. K (2010) "Comparative Studies on Mechanical Properties in High Performance Concrete" & "Microstructural Studies on High Performance Concrete"

(ii) Praveen. V.F. (2010) "Effect of Mineral Admixtures on Self-Compacting Concrete" & "Long-term Effects due to Creep and Shrinkage in Prestressed Concrete Bridge Girders using SCC"

(iii) ChittiBabu. K (2011) "Durability Studies on High Performance Concrete" & "Modulus of Elasticity, Poisson's ratio and Durability Studies on High Performance Concrete"

(iv) Balachander. T (2012) "Properties of High Performance Concrete as Partial Replacement of Cement with Ground Granulated Blast Furnace Slag" & "

(v) Naresh Prasad Kesari (2012) "A Comparative Study on Long-term Deformation of High Performance Prestressed Concrete Bridges" & "Long-term Deformation of Long-span High Performance Prestressed Segmental Concrete Bridge"

(vi) Alaguvel.S (2013) "Long-term Studies in Pre-tensioned Concrete Bridge Girders" & "A Comparative Study on Long-term Deformation of Segmental and Cable-stayed Bridges"

(vii) Pratap. K.V (2013) "Permeability of High Performance Concrete" & "Effect of Various Curing Conditions on Compressive Strength of HPC"

(viii) Arunkumar. C (2013) "Behavior of Self Compacting Concrete on its Fresh and Hardened State" & "Mathematical Modelling of Self Compacting Concrete"

(ix) Ramesh. K (2013) "Durability Studies on HPC" & "Permeability Studies on High Performance Concrete"

(x) Mahendra Kalet (2014) " Durability Studies on High-Performance Concrete" & "Acid and Salt Resistance Studies on High Performance Slag Concrete"

(xi) Amit Chandrakant Pardhe (2014) "Safety Analysis of Concrete Structures" & "Experimental Investigations on Fire Resistant Light Weight Concrete".

(xii) Krishna Prasanth (2014) "Mechanical Behavior of Ultra High Performance Fibre Reinforced Concrete" & "Behavior of Ultra High Performance Concrete exposed to Acid, Sulphate and Marine water attack"

(xiii) Karthikeyan. G (2014) "Flexural Behavior of Reinforced Concrete Slab for Low Cost Housing" & "Flexural Behavior of Ferrocement Slab for Low Cost Housing".

(xiv) Jebin Thomas (2015) "Optimal Sizing and Placement of Inflatable Stiffeners in High Altitude Airships"

(xv) Venu. B (2015) "Comparative Study on High Performance Mortars using Alccofine and Silicafume" & "Mechanical Properties of High Performance Concrete using Alccofine and Silicafume"

(xvi) Pavan Kumar Reddy. P (2015) "Influence of GGBFS on Workability and Compressive Strength of Geopolymer Concrete" & "Effect of Flyash aggregate on Workability and Compressive strength of Geopolymer Concrete"

(xvii) Bhanu Prakash Reddy. M (2015) " Fresh and Hardened Properties of Self Compacting Concrete using Glass Powder Waste" & "Fresh and Hardened

Properties of Self Compacting Concrete using Glass Powder Waste, Flyash and GGBFS"

(xviii) Viswa Kireeti. K.V (2016) "Durability Performance of Fly Ash Based Light-Weight Aggregate Geopolymer Concrete" & Effect of curing on Compressive and Bond Strength of Light-Weight Aggregate Geopolymer Concrete"

(xix) Rahul (2016) "Strength Characteristics of High-Performance Concrete with Rice husk ash and GBF Slag" & "Sustainability Characteristics of High-Performance Concrete with Rice husk ash and GBF Slag"

(xx) Akhil. G (2016) "Mechanical Properties of Concrete incorporating Copper slag as Fine aggregate" & "Durability Performance of Copper slag Admixed Concrete"

(xxi) Afsal. C (2016) "Strength Characteristics of Lightweight Aggregate Concrete and Geopolymer Concrete" & "Effect of Vermiculate in Concrete and Mortar on Compressive strength and Thermal conductivity"

(xxii) Nakhate Ankush Ashok (2017) "Effect of Headed Reinforcement Bar on Anchorage and Bond Strength in Concrete" & "Behavior of High Strength and Semi-Light Weight Concrete Subject to Bond Strength"

(xxiii) Y. Arunkumar Reddy (2017) "Experimental Investigation on Strength of Concrete using Alccofine and Basalt Fibres" & "Experimental Investigation on High Strength Concrete using Alccofine and Basalt Fibres"

(xxiv) B. Raja Sekhar Reddy (2017) "Mechanical Properties of Hybrid Fiber Reinforced Geopolymer Concrete" & "Flexural Behaviour of Hybrid Fiber Reinforced Geopolymer Concrete"

(xxv) Yogesh Sevak (2018) "Strength Properties of concrete using Polyethylene Plastic waste as fibres"

(xxvi) Survesh Chetival (2018) "Performance Study of Concrete made with Recycled Aggregate"

(xxvii) Shanyam Jinjari (2018) "Behavior of Recycled Concrete filled steel tube Columns subjected to Axial Compression"

(xxviii) Anikit Swarnkar (2018) "Properties of Concrete using Spent bleach earth, De-oiled earth & Ricehusk Ash"

(xxix) Gaurav Bobdae (2018) "Properties of chemically treated Jute Fibre reinforced Concrete"

(xxx) Albish Debbarma (2019) "Foundry sand as Partial replacement of Fine aggregate in Concrete"

(xxxi) Kanna Sumanth (2019) "Relationship between Water-binder ratio vs Compressive strength for High Strength Concrete"

(xxxii) Sriram (2019) "Experimental Study on Transport Mechanism & Deterioration of Concrete Subjected to Seawater"

(xxxiii) Kanit Palakia (2020) "Accelarated Aging Alkali-silica reaction behavior of Self-compacting Concrete containing Steel Slag as Coarse Aggregate"

(xxxiv) Amitkumar Sahu (2020), "Permeation and Corrosion Resistance of Self-compacting Concrete containing Steel Slag as Coarse Aggregate"

(xxxv) Ketan Sharma (2020), "Effect of GGBFS and Silicafume in Durability Properties of Ternary Blended Self-compacting Concrete"

(xxxvi) Rajesh Naick (2020), "Properties of Flyash Concrete using Weldslag as Coarse Agggregate"

(xxxvii) Arun Raajan R (2020), "Mechanical and Microstructural Behavior of Ultra High-performance Concrete using Ultrafine Flyash"

(xxxviii) Thanigaivel (2020), "Selection of Alternate Earthfilling Materials in Amaravathi GIS Substation Project"

(xxxix) Hakesh (2020), "Comparitive Study of Precast with conventional concrerting for Power Distribution Projects"

(xl) Ravi Nayak (2021), "Regression Analysis on the Strength Properties of UHPC mixes using ANN model"

(xli) Mansoor P Syed (2021), "ANN Modelling to predict the Mechanical Properties of Sustainable Self-Compacting Concrete"

(xlii) Sneha Aggarwal (2021), "Lean Construction of 33/11 kV Substation in Power Distribution Business"

(xliii) Shraddha Rawat (2021), "Service Life Prediction of Reinforced Concrete"

(xliv) Gamini Srivalli (2021), "Productivity Improvement Techniques of PQC Construction in Roads and Airports"

(xlv) B. Kartheek (2022), "Estimation of Long-term of Prestressed Bridge Girder"

(xlvi) Gautham Kumawat (2022), "Strength and Durability Characteristics of Self Compacting Concrete containing Induction Furnace Steelslag as Fine and Coarse Aggregate"

(xlvii) Dipendra Paneru (2022), Study on Ultra High-performance Alkali Activated Concrete using Ultra Fine Binders"

(xlviii) Neil Rajesh Lapalikar (2022), "3D Concrete Printing Simulation"

(iv) Other contribution(s) – Co-ordinator for M.Tech. Construction Technology & Management programme – A Prestigious course offered by L&T under Build India Scholarship Programme.

(v) Served as M.Tech. Structural Engineering Programme coordinator and Structural Engineering laboratory in-charge for one year period (2017 to 2018)

14. Details of Major consultancy Projects involved

i. Upgradation of Passenger Terminal Building – Vetting the Structural Design, Airport Authority of India, Tiruchirappalli.

ii. Upgradation of Passenger Terminal Building – Concrete Design Mix for M15, M25, M30, M35 & M40, Airport Authority of India, Tiruchirappalli.

iii. Material Testing and Concrete Design mix for various public and private firms.

iv. Condition Assessment of Damaged bridges and buildings of various public and private sector firms.

v. Third party inspection and testing services for various agencies.

15. Number of PhDs guided

Name of the PhD Scholar	Title of Ph.D. Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
Allam Lingam	Mechanical and Durability Studies on High Performance Concrete Containing Quaternary Blends	Supervisor	2014
A.Ananthi	Effect of Weldslag as Fine Aggregate in High Performance Fibre Reinforced Concrete	Supervisor	2016
G.Venkata Suresh	Utilization of Industrial Inorganic Solid Waste in the Preparation of the Geopolymer Concrete	Supervisor	2017
P.Parthiban	Mechanical & Durability Studies on UFGGBFS Semi-Lightweight Concrete containing Calcite Powder Pellets	Supervisor	2020
R.Vijaya Sarathy	Experimental Investigations on the Performance of Ultrafine Ground Granulated Blast Furnace Slag and Copper Slag based Geopolymer Concrete	Co-Supervisor	2021
S.R.Shamili	Correlation on the properties of Recycled Aggregate Concrete and Strength Prediction using Machine Learning Techniques	Supervisor	2022
P.Chandru	Performance Evaluation between Ternary Blended SCC Mixes containing Induction Furnace Slag and Crushed Stone as Coarse Aggregate	Supervisor	2022

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of Event	Role	Event Organized by	Venue
September 2009	PCI/NBC Conference	International	Speaker	PCI	San Antonio, Texas, USA
June-July 2010	8th SMSB Conference	International	Speaker	SMSB	Niagara Falls, Canada
August – 2011	9th HPC Symposium	International	Speaker	HPC Association	Rotorua, New Zealand
December-2011	ICSECM Conference	International	Speaker	SECM	Kandy, Sri Lanka
September-2013	7th RILEM Conference	International	Speaker	SCC	Paris, France
November – 2014	ICCMS Conference	International	Speaker	CMS	Johannesburg
June-2015	Sustainability Conf.	International	Speaker	LC3 Association	Lausanne, Switzerland
September-2015	FC2015 Conference	International	Speaker	FC Association	Prague, Czech Republic

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue
FDP on Concrete Technology-Past, Present and Future	National	15.06.2020 to 26.06.2020	Co-ordinator	Online
GIAN course on Failure analysis & Forensic Engineering on Structures	International	10.06-2019- to 21.06.2019	Co-ordinator	NITT
Seminar on Concrete Mix Proportioning" Department of Civil Engineering, NIT-Trichy and jointly organized with Ultratech Cement Ltd	National	29 February 2016	Co-ordinator	NITT
Workshop on Advancement in Concrete Technology	National	27-28 March 2015	Co-ordinator	NITT
Workshop on Introduction to Finite Element Methods and its applications	National	23-24 January 2015	Co-ordinator	NITT
Seminar on Forensic Engineering	National	19-21	Co-	KSHRI

practices for Kerala PWD Engineers		December 2014	ordinator	Trivandrum

18. Invited Talks delivered

1. "High Performance Concrete Using Condensed Silica fumes" The Institution of Engineers – Tiruchirappalli local centre on 16th June 2009.
2. "Material Characterization" PMGSY Short-term course for Executive Engineers – NIT-Tiruchirappalli on 9th February 2010.
3. "Methods of Bridge Construction" PMGSY Short-term course for Executive Engineers – NIT-Tiruchirappalli on 12th February 2010.
4. "Testing and Strengthening of Bridges" PMGSY Short-term course for Executive Engineers – NIT-Tiruchirappalli on 12th February 2010.
5. "Special Concretes" One day workshop on Concrete Mix Design, NIT-Tiruchirappalli on 10th March 2010.
6. "Self-Compacting Concrete" Annai Engineering College – Kumbakonam on 4th April 2011.
7. "Recent Trends in Concrete Technology", Institution of Engineers (India) Trichy local Centre on June 2012.
8. "Recent Trends in Prefabricated Constructions" Dhanalakshmi Srinivasan College of Engineering – Perambalur on 4th October 2013.
9. "Thermal Stresses" Agni college of Technology-Chennai on 16th June 2014.
10. "Thin Cylinders and Shells" Agni college of Technology-Chennai on 17th June 2014.
11. "Importance of Ductility-Methods of Introducing Ductility into R.C. Structures" Anna University of Technology, Dindigul on 22nd June 2014.
12. "Testing of Cement, Concrete, Aggregates, Timber & Steel" Kerala State Highway Research Institute, Trivandrum on 19th to 21st Decemeber 2014.
13. "Application of Plane truss, Beam and Frame problems using FEM" NIT-Trichy on 24th January 2015.
14. "Sustainability in Concrete Construction for the present Era" Care Group of Institution, Trichy on 13th March 2015.
15. "Modern Concreting Techniques" The Gandhigram Rural Institute, Gandhigram, Dindigul on 26th March 2015.
16. "Concreting under Special Circumstances", NIT-Trichy on 27th March 2015.
17. "Testing of Fresh and Hardened Properties of Concrete", NIT-Trichy on 27th March 2015.
18. "Special Concrete", NIT-Trichy on 28th March 2015.

19. "Hot weather and Cold weather Concrete", Government Polytechnic College, Nalgonda on 2nd April 2015.
20. "Flexural Members-Working stress method", Knowledge Institute of Technology, Salem on 23rd May 2015.
21. "Concrete Mix Proportioning and Durability", Care Group of Institution, Trichy on 2nd March 2016.
22. "Concrete Sustainability", Government College of Technology, Coimbatore on 22nd April 2016.
23. "Prefabricated Structural Elements", Anna university of Technology, Tiruchirappalli on 22nd June 2016.
24. "Forensic Engineering and Rehabilitation of Structures", Coimbatore Institute of Technology, Coimbatore on 15th September 2016.
25. "High Performance Concrete", T.K.M. College of Engineering, Kollam on 2nd February 2017.
26. "Concrete Repairs – Case studies", T.K.M. College of Engineering, Kollam on 2nd February 2017.
27. "Repair Techniques", Hindustan College of Engineering and Technology, Coimbatore on 10th February 2017.
28. "Losses in Prestressed Concrete", Mar Baselios College of Engineering, Trivandrum on 22nd February 2017.
29. "Limit State of Collapse – Prestressed Concrete Design of Flexural members" Mar Baselios College of Engineering, Trivandrum on 22nd February 2017.
30. "Cement Based Materials" Anjalai Ammal Mahalingam Engineering College, Kovilvenni on 5th April 2017.
31. "HPC for the Present Era" VIT University, Vellore on 13th April 2017.
32. "Material Characterization" Irrigation Management Training Institute, Tiruchirappalli on 4th July 2017.
33. "Alternate Material for Sand in Building Construction" Bannari Amman Institute of Technology, Sathyamangalam on 22nd July 2017.
34. "Importance of Concrete Design Mix" Irrigation Management Training Institute, Tiruchirappalli on 25th July 2017.
35. "Testing of Cement and its Significance" Irrigation Management Training Institute, Tiruchirappalli on 8th August 2017.

36. "IS Method of Mix Design and Laboratory Demonstration" Agricultural Engineering Training Centre, Tiruchirappalli on 22nd August 2017.
37. "GeoPolymer Concrete" Dr. N.G.P. Institute of Technology, Kalappatti, Coimbatore on 22nd September 2017.
38. "Alternative for Fine Aggregate in concrete construction" J.J. College of Engineering and Technology, Trichy on 5th October 2017.
39. "Research Opportunities in Concrete Technology" GCE, Srirangam on 23rd January 2018.
40. "Alternatives for Natural Sand, Cement and Aggregates for Modern Construction Practices" Erode Sengunthar Engineering College, Perundurai on 27th February 2018.
41. "Pre-Engineered Buildings" M.A.M. College of Engineering and Technology, Trichy on 20th March 2018.
42. "Semi-Light Weight Wood Ash Aggregate Concrete", Dr. N.G.P. Institute of Technology, Coimbatore on 5th April 2018.
43. "Use of Wood Ash aggregates- A Low Cost Housing Material" Sri Ramakrishna Institute of Technology, Coimbatore on 29th June 2018.
44. "Geopolymer Concrete – A State of Art" V.S.A College of Engineering, Salem on 20th July 2018.
45. "Concrete Mix Design using IS Method" Agricultural Engineering Training Centre, Tiruchirappalli on 11th September 2018.
46. "Advanced Structural Analysis" Dr. B. R. Ambedkar Institute of Technology (DBRAIT), Port Blair, 14th and 15th September 2018.
47. "Alternative Construction materials for the replacement of River Sand" Alagappa Chettiar Government College of Engineering and Technology, Karaikudi, 23rd November 2018.
48. "Design of M25 Concrete Mix using IS Method" Agricultural Engineering Training Centre, Tiruchirappalli on 2nd January 2019.
49. "Handling stresses in Prefabricated Sections" Anna University Regional Campus Coimbatore on 2nd March 2019.
50. "High Performance Concrete – a Broad Profile" Pondicherry Engineering College, Pondicherry on 11th March 2019.
51. "Introduction to Earthquake Engineering, Lessons learnt from past earthquakes" FDP on Structural Dynamics and Earthquake Engineering conducted by Department of Civil Engineering, Kumaraguru College of Technology. Coimbatore on 15th May 2019.

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Fellow	Institution of Engineers (India)	F-1287989 (24-02-2022)
Life Member	Indian Concrete Institute	LM-10486 (Jan2014)
Individual Member	American Concrete Institute US	Renewed every year
Senior Member	RILEM, France	Renewed every year

20. Academic Foreign Visits

Country	Duration of Visit	Programme
San Antonio, Texas, USA	September 2009	PCI/NBC Conference
Niagara Falls, Canada	June-July 2010	8th SMSB Conference
Rotorua, New Zealand	August – 2011	9th HPC Symposium
Kandy, Sri Lanka	December-2011	ICSECM Conference
Paris, France	September-2013	7th RILEM Conference
Johannesburg	November – 2014	ICCMS Conference
Lausanne, Switzerland	June-2015	Sustainability Conf.
Prague, Czech Republic	September- 2015	FC2015 Conference

21. Publications

(A) Refereed Research Journals:

1. **J. Karthikeyan, Upadhyay. A and N. M. Bhandari, "Artificial Neural Network for predicting creep and shrinkage in HPC", Journal of Advanced Concrete Technology, 6(1), March 2008, pp. 135-142. SCI**
2. J. Karthikeyan and Praveen.V.F. "Long-term effects of creep and shrinkage on prestressed concrete Bridge girders using SCC ", International Journal of Structural Engineering, Vol. 2, No. 4, 2011. (pg. 390-403) **SCOPUS**
3. **J. Karthikeyan, Upadhyay. A and N. M. Bhandari, "Long-term Deformation of a Simply Supported HPPC Twin-cell Box Girder Bridge", The Bridge and Structural Engineer, Vol. 42 No.2, June 2011. (pg.1-25)**
4. Rajiv Gandhi. K and J. Karthikeyan, "Comparative Study of Structural Design and Cost Analysis for Storage Container Circular and Square Shapes", International Journal of Scientific Research, Vol. 1 No. 6, November 2012. (Pg. 52 – 54)

5. Alaguvel. S and Karthikeyan. J, "Long-term Behavior of Simply Supported Pretensioned Concrete Bridge Girders", The Bridge and Structural Engineer, Vol. 43 No.1, March 2013 (pg.49-72)
6. **J. Karthikeyan, Upadhyay. A and N. M. Bhandari, "Long-term Deformation of a Simply Supported HPPC Single-cell Box Girder Bridge", The Bridge and Structural Engineer, Vol. 43 No.2, June 2013. (pg.7-29)**
7. J.Karthikeyan and K.V.Pratap, "Effect of various Curing Conditions on Compressive strength on HPC", Elixir Cement and Concrete Composites, Vol. 61, August 2013. (pg.16705-16708)
8. Allam Lingam and J.Karthikeyan, "Flow Behavior of Freshly Mixed Quaternary Blended High Performance Concrete using Modified Slump Cone test", Elixir Cement and Concrete Composites, Vol. 61, August 2013. (pg.16709-16717)
9. J.Karthikeyan and C. Arunkumar, "Effect of Silicafume and flyash on fresh and hardened state of Self Compacting Concrete", Elixir Cement and Concrete Composites, Vol. 61, August 2013. (pg.16718-16722)
10. **Karthikeyan Jayakumar, Akhil Upadhyay and Navrathan M. Bhandari, "Creep and Shrinkage behavior of HPC", The Indian Concrete Journal, Vol. 87 No 10, October 2013. (pg.39-45) SCO**
11. Allam Lingam and J.Karthikeyan, "Rheological Behavior of Binary and Quaternary Blended High Performance Concrete using Modified Slump Cone test", International Journal of Advanced Engineering Applications, Vol. 2, Issue 5, October 2013. (pg.116-131)
12. Allam Lingam and J.Karthikeyan, "Prediction of Compressive Strength for HPC mixes containing different blends using ANN", Computers and Concrete, Vol. 13, No. 5, May 2014. (pg.581-592) **SCI**
13. J. Karthikeyan and K. Shaheer Ali, "Comparative Studies on Mechanical Properties in High Performance Concrete", The Indian Concrete Journal, Vol. 88, No. 9, September 2014. (pg. 35-45) **SCO**
14. A. Ananthi and J. Karthikeyan, "A Review on the Performance of Fibre and Industrial Slag in Concrete", International Journal of Advanced Concrete Technology, Vol. 1, No.1, March 2015. (Pg.16- 31).
15. A.Ananthi and J.Karthikeyan, "Performance of polypropylene fibre in high-performance concrete", Proceedings of the Institution of Civil Engineers: *Construction Materials, London Vol.168* (5), 2015,

    SCOPUS DOI: 10.1680/coma.15.00004

16. A.Ananthi and J.Karthikeyan, "Properties of Industrial Slag as Fine Aggregate in Concrete". *International Journal of Engineering and Technology Innovation*, Vol-5, 2015, 132-140. **SCOPUS**
17. A.Ananthi and J.Karthikeyan, "Mechanical properties of HPC with weld slag as fine aggregate", Proceedings of the Institution of Civil Engineers: *Waste and Resource Management, 2015, London.*

    SCOPUS DOI: 10.1680/jwarm.15.00002
18. J.Karthikeyan, "Material Advantage: Small, Strong and Resistant", *Construction world, Vol. 17, No. 12,* September 2015, (Pg. 94-96)
19. A.Ananthi and J.Karthikeyan, "A Review on the effect of Industrial waste in Concrete", *Indian Concrete Journal, Vol. 89, No. 11,* November 2015. (Pg.73-80) **SCOPUS**
20. G.Venkata Suresh and J. Karthikeyan, "Influence of GGBFS on the Mechanical Properties of the Water Cured Fly Ash Aggregate-Based Geopolymer Concrete", *International Journal of Advanced Concrete Technology, Vol. 1, No.2,* 2015. (Pg.1-12).
21. J.Karthikeyan, "Material Advantage: The Next Smart Building Material", *Construction world, Vol. 18, No. 6,* March 2016, (Pg. 90-92)
22. G. Venkata Suresh and J. Karthikeyan, "Performance enhancement of Green Concrete" Proceedings of the Institution of Civil Engineers: Engineering Sustainability, May 2016. **SCI**

    DoI: 10.1680/jensu.15.00066
23. G. Venkata Suresh and J. Karthikeyan, "Influence of Chemical Curing Technique on the Properties of Flyash Aggregates prepared without Conventional Binders", Journal of Structural Engineering (Madras) *Vol.43, No.4, 2016, Chennai, P.381 to 389.* **SCOPUS**
24. G.Akhil and J.Karthikeyan, "Durability aspects of Copper slag admixed Concrete", International Journal of Fracture and Damage Mechanics, Vol.1, No.2, Pg.40-46, 2016.
25. Allam Lingam and J.Karthikeyan, "Compressive strength properties of HPC mixes containing binary and quaternary blends", Indian Concrete Journal, Vol.90, No.10, P.32-43 , 2016 **SCOPUS**
26. K.V. Viswa Kireeti and J. Karthikeyan, "Durability studies of chemically cured fly ash pellet aggregate geopolymer concrete", Indian Concrete Journal, Vol.91, No.1 , P.62 to 67 Jan 2017 **SCO**
27. P. Parthiban and J. Karthikeyan, "Material Advantage: Light Strength", *Construction world, Vol. 19, No. 11,* August 2017, (Pg. 102-103)

28. G. Venkata Suresh, P. Pavan kumar Reddy and J.Karthikeyan, " Effect of GGBFS & Fly ash aggregates on Properties of Geopolymer Concrete", Journal of Structural Engineering (Madras), *Vol.43, No.5, 2017, Chennai, P.436 to 444.* **SCOPUS**

29. A. Ananthi and J. Karthikeyan, "Combined Performance of Polypropylene fibre and weld slag in High Performance Concrete", Journal of Institution of Engineers (India): Series A, Vol.98, No.4, 2017, *P.405 to 412*. **SCOPUS**

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