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## Research output

### **Practice on creating a common reference concrete for Round Robin Testing programmes based on the experience from COST Action TU1404**

Serdar, M., Staquet, S., Schlicke, D., Rozière, E., Azenha, M., Nanukuttan, S., Gabrijel, I., Cizer, Ö., Bokan Bosiljkov, V. & Šajna, A., 30 Jun 2020, In: Construction and Building Materials. 247

### **RILEM TC 247-DTA round robin test: mix design and reproducibility of compressive strength of alkali-activated concretes**

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### **Effectiveness of two field methods of saturating near surface concrete on the water permeability of in situ concrete**

Yang, K., Basheer, M., Nanukuttan, S., Bai, Y. & Long, A., 28 Aug 2019, In: MATEC Web of Conferences. 289, p. 06004

### **Suitability of alkali activated slag/fly ash (AA-GGBS/FA) concretes for chloride environments: Characterisation based on mix design and compliance testing**

Bondar, D., Basheer, M. & Nanukuttan, S., 20 Aug 2019, In: Construction and Building Materials. 216, p. 612-621 10 p.

### **Efficient mix design of alkali activated slag concretes based on packing fraction of ingredients and paste thickness**

Bondar, D., Nanukuttan, S., Provis, J. L. & Soutsos, M., 01 May 2019, In: Journal of Cleaner Production. 218, p. 438-449 12 p.

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### **Performance of anaerobic digestion systems : A review**

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### **Characterisation of pore structure development of alkali-activated slag cement during early hydration using electrical responses**

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**Sustainability of Cold-formed Steel Portal Frames in Developing Countries in the Context of Life Cycle Assessment and Life Cycle Costs**

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**Suitability Of Alkali Activated GGBS/fly Ash Concrete For Chloride Environments**

Bondar, D., Nanukuttan, S. V., Soutsos, M. N., Basheer, P. A. M. & Provis, J. L., 01 Oct 2017, *International Conference on Cementitious Materials and Alternative Binders for Sustainable Concrete (ICCM) 2017: Proceedings*. RILEM Publications, p. 35.1-35.14 14 p. (ACI Symposium Special Publications; vol. 320).

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Bondar, D., Nanukuttan, S., Soutsos, M. & Provis, J., 05 Sep 2016, *Proceedings of the 36th Cement and Concrete Science Conference*. UCL Press, 4 p.

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### **Chloride induced corrosion of steel bars in alkali activated slag concretes**

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**Research at Queen's University Belfast on Testing and Monitoring the durability of concrete structures**

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**Recent developments in in-situ chloride migration test: Permit ion migration test**

Nanukuttan, S., Basheer, M., Russell, M. & Robinson, D., Jan 2008, p. 1-9. 9 p.

**Effect of duration and conditions of exposure on chloride diffusion**

Nanukuttan, S. V., Basheer, P. A. M., Robinson, D. J. & McCarter, W. J., 01 Dec 2006, *Concrete Repair, Rehabilitation and Retrofitting - Proceedings of the International Conference on Concrete Repair, Rehabilitation and Retrofitting, ICCRRR 2005*. p. 131-132 2 p.



## Projects

### **R6310CIV: Atlantic Area Trans-National Cooperation Programme**

Basheer, M., Cleland, D. & Nanukuttan, S.  
01/08/2008 → 30/06/2014

### **R3785CIV: BanahCEM Phase II**

Soutsos, M., Nanukuttan, S. & Sha, W.  
17/06/2016 → 31/07/2018

### **R7381CIV: Developing guidelines for specifiers and designers for selecting materials and technologies**

Nanukuttan, S.  
01/08/2011 → 31/01/2015

### **R3581CIV: Development and Commercialisation of banahCEM Geopolymer Binder**

Cleland, D., Nanukuttan, S. & Soutsos, M.  
13/12/2013 → 31/10/2016

### **R1970CIV: Development of a Performance-based Methodology**

Basheer, M., Basheer, L. & Nanukuttan, S.  
01/08/2008 → ...

### **R5736CIV: Development of geopolymer cement**

Cleland, D., Nanukuttan, S. & Soutsos, M.  
01/08/2011 → ...

### **R1434CIV: EMSIRDecMo - Energy Management System incorporating Retrofit Decision Model**

Nanukuttan, S., Basheer, M. & Soban, D.  
28/07/2014 → 31/07/2016

### **R3402CIV: Energy Efficiency of Buildings Monitoring**

Nanukuttan, S.  
01/08/2012 → ...

### **R1936PSY: Inclusion Really Does Matter: Improving Reactions to Gender Equality Initiatives Amongst Academics in Engineering and Physical Sciences**

Latu, I., Arredondo-Arechavala, M., McCartan, C., McCormack, T., Nanukuttan, S., Rafferty, K., Ranade, V., Scott-Hayward, S. & Turner, R.  
03/08/2018 → ...

### **R2920CIV: Industrial Secondment Scheme**

Nanukuttan, S.  
01/08/2012 → ...

### **S2445CIV: KTP/ Creagh Concrete Products Limited**

Conway, G., Nanukuttan, S., Sha, W. & Soutsos, M.  
01/08/2018 → ...

### **S2358CIV: KTP/Banah UK**

Nanukuttan, S. & Soutsos, M.  
01/08/2013 → 28/02/2017

**S2386CIV: KTP/Creagh Concrete Products Ltd**

Chen, J. F., Nanukuttan, S., Robinson, D., Sha, W. & Soutsos, M.  
01/08/2015 → ...

**R1482CIV: Rational Design of Low-CO2 Alkali-activated Concretes for Eco-efficiency and Durability**

Nanukuttan, S. & Soutsos, M.  
10/11/2014 → 31/03/2018

**R6372CIV: SUS-CON SUSTainable, innovative & energy-efficient CONcrete, based on the integration of all-waste materials**

Soutsos, M., Basheer, M. & Nanukuttan, S.  
01/08/2011 → 31/12/2015

**Activities****Embedding innovation and resilience for sustaining growth in unfavourable economic periods**

Sree Nanukuttan (Advisor), Daniel McPolin (Contributor), Adrian Long (Contributor), Ruben Correia (Contributor) & Abhey Gupta (Contributor)  
02 Dec 2020

**Monitoring concrete performance under simulated and natural chloride environments**

Sree Nanukuttan (Examiner)  
26 Feb 2018

**Novel non-destructive test methods and sensor techniques for assessing the durability and service life of concrete structures**

Sree Nanukuttan (Advisor)  
06 Apr 2017

**European Federation of Corrosion - Steel Corrosion in Alkali Activated Materials**

Sree Nanukuttan (Participant)  
28 Mar 2017 → 29 Mar 2017

**2nd R.N. Raikar International Conference and Banthia-Basheer International Symposium**

Sree Nanukuttan (Member of the scientific committee)  
18 Dec 2015

**Chloride diffusivity testing and modelling**

Sree Nanukuttan (Speaker)  
17 Dec 2015

**Assessment of Built Infrastructure: Imaging and Beyond**

Sree Nanukuttan (Speaker)  
20 Mar 2015

**Achieving performance in practice**

Sree Nanukuttan (Speaker)  
Feb 2015

**Buildings (Journal)**

Sree Nanukuttan (Peer reviewer)  
2015

**Chloride ingress into alkali activated slag concretes**

Sree Nanukuttan (Member)

11 Oct 2014

**Chloride ingress into concrete – Modelling and Specification**

Sree Nanukuttan (Speaker)

24 Sep 2014

**Towards the next generation of standards for service life of cement-based materials and structures**

Sree Nanukuttan (Member)

Jul 2014 → May 2018

**Cement and Concrete Research (Journal)**

Sree Nanukuttan (Peer reviewer)

2014 → 2015

**Innovative low carbon binder system made from Northern Ireland laterite - Research to in situ application**

Sree Nanukuttan (Contributor)

2014 → 2017

**Concrete Canoe Race - 3rd Year Students**

Sree Nanukuttan (Advisor)

03 Jul 2013

**Royal Academy Funded Industrial Secondment**

Sree Nanukuttan (Participant)

Mar 2013 → Feb 2014

**ASCE Journal of Performance of Constructed Facilities (Journal)**

Sree Nanukuttan (Peer reviewer)

Jan 2013

**Civil Engineering Research Association of Ireland (External organisation)**

Sree Nanukuttan (Chair)

2012 → 2014

**Herron (Publisher)**

Sree Nanukuttan (Peer reviewer)

2012

**Rilem (External organisation)**

Sree Nanukuttan (Contributor)

2012 → 2018

**Institution of Civil Engineers NI (External organisation)**

Sree Nanukuttan (Member)

2011 → 2012

**Construction and Building Materials (Journal)**

Sree Nanukuttan (Peer reviewer)

2010 → 2014

**Institution of Civil Engineers (External organisation)**

Sree Nanukuttan (Member)

2010 → 2012

**Institution of Civil Engineers (External organisation)**  
Sree Nanukuttan (Member)  
2010 → 2012

**Rilem (External organisation)**  
Sree Nanukuttan (Contributor)  
2009 → 2015

**Institution of Civil Engineers (External organisation)**  
Sree Nanukuttan (Member)  
2007 → 2012

**Courses on NDT of Concrete**