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## Research output

### **Sustainable resource recovery and process improvement in anaerobic digesters using hydrochar: a circular bio-economic perspective**

Oumabady, S., Ramasamy, S. P., Paul Sebastian, S., Rajagopal, R., Obulisamy, P. K., Doherty, R., Nanukuttan, S., Bhardwaj, S. K. & Kumaresan, D., 25 Jul 2023, (Early online date) In: *Journal of Sustainable Agriculture and Environment*. 9 p.

### **Biocellular concrete façade: storing waste and absorbing carbon dioxide**

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### **Suitability of electrochemical test methods for evaluating corrosion of the steel in alkali activated slag concretes**

Ma, Q., Bai, Y., Yang, C., Basheer, P. A. M. & Nanukuttan, S., Dec 2022, In: *Magazine of Concrete Research*. 74, 24, p. 1259-1269 11 p.

### **Utilisation of calcined Palygorskite clay in cementitious system**

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### **Sensor-based decision making in precast concrete production**

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### **External sulphate attack on alkali activated slag and slag/fly ash concretes**

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### **Exposure of magnesium oxide boards to various conditions for extended durations**

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### **Influence of carbonation on the bound chloride concentration in different cementitious systems**

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### **Effect of carbonation on bound chlorides in different cementitious systems**

Zheng, Y., Russell, M., Basheer, M., Yang, K., McPolin, D. & Nanukuttan, S., Aug 2020, *Civil Engineering Research in Ireland 2020 Conference: Proceedings*. p. 702-707 6 p.

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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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**Influence of combined carbonation and chloride ingress regimes on rate of ingress and redistribution of chlorides in concretes**

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### **Chloride transport and the resulting corrosion of steel bars in alkali activated slag concretes**

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17/06/2016 → 31/07/2018

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

Nanukuttan, S.  
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### **R3581CIV: Development and Commercialisation of banahCEM Geopolymer Binder**

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

Nanukuttan, S.  
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### **S2445CIV: KTP/ Creagh Concrete Products Limited**

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**R1482CIV: Rational Design of Low-CO<sub>2</sub> 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**