



The Institute of Concrete Technology Annual Report for 2021



October's Technical Seminar in Stratford-upon-Avon

ICT Council 2021-2022

Elected at, or co-opted since, the AGM in 2021

Muhammed Basheer President 2021-2023
Colin Nessfield Vice President
Dean Courtney-Ward Hon. Secretary
Ian Evans Hon. Treasurer

Gerry Attree
Kathy Calverley
Nina Cardinal
Simon Chudley
Gareth David
Mike Grantham
Stephen Handscomb
Peter Hewlett
Richard Kershaw
Agnieszka Klemm
Alistair Legg
Rob Lewis
Raman Mangabhai
John Reddy

Regional Representatives

Des Vlietstra Australia
Jun Ren China
Siva Kandasami India
Arvind Suryavanshi Indonesia
Khaled Awad Lebanon
Mohamad Sabra Oman
Deepu Karthikeyan Qatar
Roelof Jacobs South Africa

Standing down in 2021

John Lay stood down from Council at the 2021 AGM, though remains Chair of the Examinations Committee.

Profit & Loss Account for the Year Ended 31 December 2021

	2021 (£)	2020 (£)
Turnover	69,891	68,990
Cost of Sales	14,447	26,848
Gross Profit	55,444	42,142
Administrative expenses	48,622	40,827
Operating profit/(loss)	6,822	1,315
Other interest receivable and similar income		
Interest payable and similar charges	1,576	1,546
Profit/(loss) on ordinary activities	8,398	2,861
Tax on profit/(loss) on ordinary activities	-	-
Profit for the financial year	8,398	2,861

ICT Membership in 2021

Accepting a period of grace for payment of subscriptions by new applicants, membership of the Institute stood at 577 (plus 38 'frozen' memberships: 615) at the end of 2021.

Students	38
Graduates	0
Technicians	34 (9)
Affiliates	15 (3)
Associates	173 (13)
Members	214 (10)
Fellows	55 (3)
Hon. Fellows	28

During the year, 65 new members joined the Institute and 10 upgraded their membership.

Sadly, Hon Fellow Prof Della M Roy died during 2021.

Right: one of the numerous students who joined in late 2021 being presented with her certificate at the members' lunch



Some Highlights of 2021

January – 26th edition of the *Yearbook* distributed.

February – Website redesigned and re-launched; Colin Nessfield elected Vice President.

March – ICT membership approved as eligible for the CSCS 'Professionally Qualified Person' card.

April – 49th annual Convention held online. Professor Basheer takes office as President.

May – Online examination for Concrete Practice trialled at the University of Ulster; Briefing Note on Calcined Clays published.

June – Professional Affiliate review carried out by Engineering Council; Article on 'Aggregates in Industry' published in *Concrete* magazine; 100th issue of the ICT Newsletter.

July – Briefing Note on 'Superabsorbent Polymers' prepared.

August – Annual CPD audit conducted; renewal of Professional Affiliate status confirmed by the Engineering Council for the next five years.

September – New committee structure and provision for regional branches agreed; training videos launched; CFTT certification programme resumed after pandemic; and affiliation to the World Cement Association signed.

October – ICT exams at Stages 2-4 undertaken; a new event introduced, the Members' luncheon.

November – Training video on sampling prepared.

December – Yearbook to press.

The President: Professor Basheer, FICT



On 29th of April 2021, at an online AGM, Rob Lewis handed to me the mantle of the presidency, though I very much missed the opportunity to celebrate the Institute's successes face-to-face and thank Rob for his excellent leadership of the ICT for the past two years. Rob summarised elegantly our key achievements, despite the Covid pandemic affecting the way activities had been planned. In my opinion, we truly reflected the motto on our coat of arms: 'Robure et Science', meaning 'Strength and Science'. 'Strength' ensured us sailing successfully through the year despite the challenges and 'Science' engaged us eagerly and creatively in various activities.

In my inaugural speech, I shared my observations of some of the strengths of the Institute and the opportunities for the ICT to progress further. I highlighted the excellent collegiality in all committees and how they work together to achieve our goals. I noted that we have a healthy financial reserve. I identified huge

opportunities through our established partnerships, such as with the ACI and RILEM, and suggested similar partnerships for undertaking training and educational initiatives.

At a recent Council meeting, we approved a new strategy document, with a new vision statement, a set of strategic goals, and a new committee structure to achieve them. We are currently finalising key performance indicators, to evaluate the progress that we make every year, and a three-year delivery plan to achieve our goals. Building on recent successes, and the renewal of the Institute's professional affiliation with the Engineering Council, we intend to strengthen our portfolio through the establishment of regional branches.

Let me now summarise some of our recent developments and achievements: our new website is now fully active; industry-sponsored ICT training videos have been launched and have received excellent feedback; the Engineering Council has renewed our professional affiliate status for another five years; our agreement with The Concrete Society has been renewed and plans Ulster University to run a Stage 1 course has been developed. We have established five new committees: Management, Regional Branches, Professional Development, Marketing & Communications, and Publishing, and our support of international conferences continues.



Certification of technicians continues with a session in Rochester; technical seminar and members' luncheon in Stratford.

ICT Exam Results in 2021

The ICT's examination series was postponed to October as a result of pandemic restrictions, with the exception of Stage 1 in May and December.

Stage 1

- 43 Distinction, 31 Credit, 22 Pass, 3 Fail

Stage 2

- 19 Distinction, 17 Credit, 7 Pass, 5 Fail

Stage 3

- 0 Distinction, 10 Credit, 9 Pass, 16 Fail

Stage 4

- One ACT Diploma was awarded during the year, the candidate having re-submitted a project.

ACT at the University of Leeds

Five were awarded the PG Dip and nine the MSc in October 2021; Richard Swatton was awarded the ICT Prize for Best Dissertation. Ten students have completed the taught component and are preparing for the MSc in 2022. Twelve new candidates registered to start the course in September 2021.

Certified Technicians

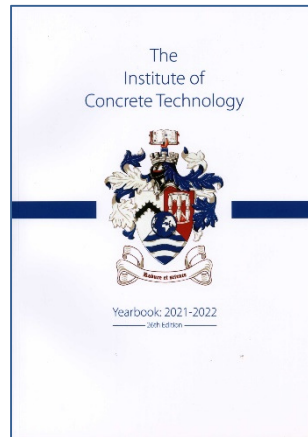
Four sessions were held between September and November, all in England, with arrangements made for future sessions in Northern Ireland and France. There were 35 candidates and 25 passes.

Professional Registration

One member was registered as an EngTech in 2021 and another as CEng.

ICT Yearbook 2021/2022

The 26th edition was published at the end of 2021. It contained the following papers:



Inside Committee: The Technical & Education Committee, by Rob Lewis

Face to Face with Chris Clear. Interviewed by Edwin Trout

Concrete Mixes on the Eastern Section of the Tideway Project, by Pierre-Edouard Denis

Cement & Concrete Industry Roadmap to Beyond Net Zero, by Richard Leese

Hydrogen: A Step Towards Net Zero Cement Production, by Iain Walpole

Reducing the Carbon Content of Concrete and the Manufacture of Low Carbon Aggregate from Kiln Dust and CO₂, by Paula Carey and Laury Barnes-Davin

Net Zero Emission Concrete: Applications in Construction and Mining, by Cyril Attwell

Environmental Product Declarations, Carbon Foot-printing and Concrete, by Hafiz Elhag and Matthew Butcher

Swedish Roadmap for a Climate Neutral Cement and Concrete Industry, by Katarina Mallaga

Sustainable Concrete in Practice: A Holistic Approach, by Paul Astle

Developing the LEILAC Technology: A Novel, Low-cost Carbon Capture Solution for the Cement Industry, by Jan Theulen, Daniel Rennie & Thomas Hills

Zero-OPC Self-Compacting Concrete: A Flemish Case Study Using Local Slags, by Lukas Arnout et al.

Delivering Low Carbon Concrete for Network Rail on the Routemap to Net Zero, by Helen McGarry & Bruce Martin

Recent Advances in Engineered Microbial Technologies for the Construction Industry, by Emmanuel Salifu et al.

Report on RAEng 2021 Webinar Series on Recycled Aggregate Concrete, by Boksun Kim

The ACT 1968-1978: Advanced Concrete Technology and the Association of Concrete Technologists as the Foundations of Today's Institute, by Edwin Trout

ICT technical meetings held in 2021

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|-------------|--|
| 22 April | Young Researchers' Forum V: <i>Innovation in Construction Materials</i> (online, led by GCU) |
| 29-30 April | 49 th ICT convention: ' <i>Net Zero Carbon Concrete: Do we know where we are Going?</i> ' (held online) |
| 13 July | 24-hour Round-the-World Conference (three ICT speakers at an ACI-led online global event) |
| 21 October | ICT seminar and members' luncheon: ' <i>Sustainable Practical Concrete Options</i> ' |

Plus: support for the webinar series arranged by RILEM, the Neville Centre and the University of Plymouth.