IChemE Medals and Prize Winners 2022

Medal	Winner	Winning paper/supporting information
Ambassador Prize The Ambassador Prize is awarded to a volunteer who has made exceptional contributions, likely within an IChemE Special Interest Group, Members Group or as an ambassador for the Institution and/or profession more widely. This prize is typically awarded in recognition of a sustained period of work on a short to medium term project.	Yasmin Ali	Yasmin is actively involved in a wide range of outreach activities as an engineer, promoting the profession both inside and outside the community. Yasmin has been volunteering on a project for the magazine since 2018 and this has resulted in her writing and publishing 25 articles for the magazine.
Greene Medal The Greene medal is awarded every year to an individual who has made a highly commendable long-term contribution to the progress ofIChemE.	Tony Fishwick	Sustained and outstanding contribution to the Loss Prevention Bulletin as an author and as a member of the Loss Prevention Panel.
Nicklin Medal The Nicklin Medal is an early careers award and was introduced in 2014 to recognise talented chemical engineering researchers. Nominees must, at the time of the awards nomination deadline, have no more than ten years postgraduate research experience and should have produced international quality research outputs.	Dr Hannah Leese	Hannah has already produced ground-breaking work on developing technologies for early detection of disease, including sepsis and ovarian cancer. She has managed to establish a strong publication and presentation record (26 journal papers, of which 5 in the last year), including a patent for textile production in biotechnology application, and won four external research grants.
Andrew Medal The medal will be awarded every three years to recognise a major contribution relevant to the science of formulation of heterogeneous catalysts.	Junwang Tang	The Panel unanimously accepted Junwang Tang as the winner based on the scientific excellence and relevance to industrial catalysis. A leader in the areas of photocatalysis and electrocatalysis for sustainability



Madal	Minner	Minning paper /our esting information
Medal	Winner	Winning paper/supporting information
Davidson Medal	Paul Witt	Paul has demonstrated a long-term commitment to the
The Davidson Medal recognises individuals who have been active mentors in industry or academia.		development of other engineers. As well as a long track record of mentoring in his organisation, Paul has contributed significantly to the development of engineers in the wider community.
Sargent Medal	Larry Biegler	The panel unanimously recommend Larry Biegler as winner of the Sargent Medal 2021.
The medal is awarded to an individual who has made a significant recent contribution to research into computer-aided product and process engineering. The contribution could encompass, but need notbe limited to, a concept that has promoted much interest, the solution of an unsolved problem, new methods/tools leading to innovative processes/products, or a significant advance of the state of the art within the area of process systems engineering.		Larry is a pioneer and world leader in the optimization of process systems who has greatly impacted theory, algorithms, software, and chemical engineering applications, including large-scale industrial problems.
Junior Sargent Medal The uses the same criteria as above but is reserved for an early- career individual	Fani Boukouvala	For the development of novel computational tools for design and optimization of multi-scale, complex systems using both data- driven concepts and traditional chemical engineering fundamentals.
Macnab Lacey Prize The Macnab-Lacey Prize is awarded to the undergraduate student design project team whose design project submission best shows how chemical engineering practice can contribute to a more sustainable world.	Joint Award to University of Manchester and University College Cork	Jointly awarded to the University of Manchester for the project Sustainable Production of Hydrotreated Vegetable Oil Diesel and University College Cork for the work on Food Waste to Biogas. Both entries showed good consideration of sustainability principles in selecting the process route and in the design. Design decisions supported minimising environmental impact, economic viability, and impact on the local community. The combination of technical design and continuous assessment in terms of "sustainability"
		measures resulted in convincing designs.



Medal	Winner	Winning paper/supporting information
Senior Moulton Medal	M.D. Sinnott	For their paper: A particle-based modelling approach to food processing
The Senior Moulton Medal is awarded to the author, or authors, of themost meritorious paper published by IChemE during the last year.	S.M. Harrison P.W. Cleary (CSIRO Data61, Clayton, Victoria, Australia)	operations. Food and Bioproducts Processing, 2021, 127, 14-57. A substantial paper that advances the discipline of particle-based modelling in food processing as well as being applicable widely in other areas such as catalysis and pharmaceuticals. The paper was well-structured and well-presented with very nice graphics The paper is likely to become a key reference.
Junior Moulton Medal follows the same criteria but recognises thebest author, or co-author, who has graduated within the last ten years (excluding career breaks) at the time of submission of the paper.	Christopher J. Quarton (Graduated November 2020) and Sheila Samsatli (Graduated March 2012) (University of Bath, UK)	 For their paper: How to incentivise hydrogen energy technologies for net zero: Whole-system value chain optimisation of policy scenarios. Sustainable Production and Consumption, 2021, 27, 1215-1238 This very topical paper looks at modelling of policy scenarios in relation to hydrogen and net-zero. It uses technoeconomic modelling to understand policy implications at a systems level. Both authors made a significant contribution to the paper and meet the criteria for the Junior Moulton Medal. The paper was highly praised by all and the committee were all in support of awarding the Junior Moulton Medal to this paper.

Miko

5



MED BE AND CO		
Medal	Winner	Winning paper/supporting information
Hanson Medal The Hanson medal is awarded to the author or authors of the bestarticle to appear in <i>The Chemical Engineer</i> magazine each year.	Marc Reid University of Bristol, UK	 For his article in The Chemical Engineer: All the Dominoes Fall, October 2020. This article received high praise from the committee. It is written by someone who is well-qualified, through personal experience, to present a case for a longer-term perspective to process safety. The article is an engaging read that is well-written and a deserving winner of the Hanson Medal. It was also noted that wider sharing of this article would be beneficial, for example to supplement lecture teaching.
Hutchison Medal is awarded for both practical and wide-ranging,philosophical, or thought provoking published papers.	Sarah C. Greenwood (University of Sheffield, UK) Stuart Walker (University of Sheffield, UK and University of Exeter, UK) Harriet M. Baird (University of Sheffield, UK) Rorie Parsons (University of Sheffield, UK) Seth Mehl (University of Sheffield, UK) Thomas L. Webb (University of Sheffield, UK) Andrew T. Slark (University Of Sheffield, UK) Anthony J. Ryan (University Of Sheffield, UK) Rachael H. Rothman (University Of Sheffield, UK)	For their paper: Many Happy Returns: Combining insights from the environmental and behavioural sciences to understand what is required to make reusable packaging mainstream. Sustainable Production and Consumption, 2021, 27, 1688-1702 A well-presented and readable paper looking at the re-use of packaging. Re-use is a personal choice in comparison to recycling which depends on available facilities. This paper is widely appealing as everyone can re- use to limit environmental impact. The committee felt this paper has the potential to stimulate discussion, a key criterion for the Hutchison Medal. The committee were unanimously in favour of awarding the Hutchison Medal for this paper.

Anthe

B



6	D WELL DEL WAR (C)	ST BU MANZER		
S	Medal	Winner	Winning paper/supporting information	
Contract of the	Lees Medal	Ashley Hynds and	Safe reinstatement of process plant - Learnings from HSE's regulation	
	The Lees Medal is awarded to the author, or authors, of the best articleon the topic of safety and loss prevention in an IChemE	Scott Templeton	of the UK offshore oil and gas industry. Symposium Series No 167 "HAZARDS 30" Paper 58 9pp	
- MOL	publication.		A Hynds and S Templeton presented a distillation of real-world events providing compelling and practically important insights into reinstatement of process plant, and have provided advice on how to make use of these insights which deserve attention across the process industries. Most operating sites should find something to learn from this contribution.	
	Morton Medal	Jarka Glassey	We recommend the award of the Morton Medal to Professor Jarka	
	The Morton Medal is awarded to the individual who has best demonstrated excellence in chemical engineering education. In particular, it looks to recognise the work of outstanding educators as well as 'game changers', and to promulgate best practice in chemicalengineering education.	University of Newcastle, UK	Glassey of the University of Newcastle, for her longstanding activities on the international stage in disseminating best practice and policy in Chemical Engineering Education.	
	Trustees Medal The Trustees Medal is awarded to a volunteer who has given	Jarka Glassey University of Newcastle	In her capacity as VP Learned Society, Jarka was the driving force in shaping and setting up the Learned Society Committee. The LSC is a top-level committee providing strategic direction of IChemE's role as	
	exceptional service to an IChemE project.		a learned society, sets priorities for the areas IChemE addresses in its role as a learned society, and provides member-led governance and	
			oversight for all of IChemE's learned society activities. Jarka was instrumental in creating this committee, defining its role and way of	
			operating, enthusing and motivating a partially new team of	
			volunteers, and establishing a strong, healthy and productive working routine for them that has achieved several key success	
			underpinning Strategy 2024.	



Medal	Winner	Winning paper/supporting information
SIESO Medal The SIESO Medal seeks to raise awareness of process safety among science, business, and engineering students. The medal was launched early 2019 following a donation from SIESO (a society called Shared Information and Experience for Safer Operation) who ceased operations in 2018 and bequeathed the bulk of its reserves to IChemE. The medal will be awarded annually to an individual or group of students for the best presentation of a major accident and the learning outcomes. Applications are sought from all students anywhere in the world, including under or postgraduate; full or part time; in chemical engineering or other subjects.	University of Bradford (Haverill) Team	The team from the University of Bradford produced an outstandingly innovative submission to this year's SIESO medal competition, consisting of an interactive training session which explains the events of the Deepwater Horizon disaster using an interactive 3-D model of the rig, and testing the participants knowledge through a series of quizzes and puzzle games. The judging panel praised the high standard of novelty, execution and interactivity in this entry, and noted the appreciable effort undergone by the team to produce this piece of work. They agreed that their approach to sharing lessons from incidents is very effective and could be emulated for other incidents.

