Number 02

WORLD of WIT

News from Wessex Institute of Technology and WIT Press

The New Forest Drifts, see back page

Prigogine Award

Ilya Prigogine was born in Moscow in 1917, and obtained his education in chemistry at the Free University in Brussels. He was awarded the Nobel Prize for his contribution to non-equilibrium thermodynamics, particularly the theory of dissipative structures. The main theme of his scientific work was the role of time in the physical sciences and biology. He contributed significantly to the understanding of irreversible processes, particularly in systems far from equilibrium. The results of his work have had profound consequences for understanding biological and ecological systems.

Prigogine's ideas established the basis for ecological systems research, and The Prigogine Medal to honour his memory is awarded annually by The Wessex Institute of Technology and the University of Siena, to a leading scientist in the field of ecological systems.

The 2009 Prigogine Medal has been awarded to Professor Emilio Del Giudice, an Italian scientist of international renown, and currently a member of the International Institute of Biophysics at Neuss in Germany. Professor Del Giudice previously worked at the National Institute of Nuclear Physics in Milano as well as the University of Naples, MIT, CERN and the Niels Böhr Institute. Professor Del Giudice's research interests are focused on Quantum Field Theory with reference to the investigation of collective processes and living organisms, as well as the structure of liquid water. He has been working on 'the study of the emergence of the collective properties of matter and particularly of the living state.' His work is characterised by its innovative approach and a fresh look at scientific problems beyond their description in terms of mechanistic paradigms. In his own words 'these concepts often come up against the inability of minds trained by absolute specialisation to detect the "unexpected connections" between apparently unrelated facts which Poincare describes as the basis of scientific progress.'

The Ceremony to award the 2009 Prigogine Medal took place in the Aula Magna at the University of Siena where, proceeded by the City Heralds, the audience entered and was addressed by the Rector, Professor Silvano Focardi on this special occasion.

Professor Del Giudice receiving the Prigogine Award 2009

The gold Medal was first awarded in 2004 to Professor Sven Jørgensen of the University of Copenhagen, followed by: Enzo Tiezzi, Italy (2005); Bernard Patten, USA (2006); Robert Ulanowicz, USA (2007) and Ioannis Antoniou, Greece (2008).

Message from WIT

Ashurst Lodge is the Campus of the Wessex Institute of Technology as well as the site of two associated companies originating from WIT's research, i.e. BEASY, offering advanced software services to industry, and WIT Press, the publishing arm of the Institute. The range of activities taking place at the Lodge makes WIT a unique organisation dedicated to serving the international scientific community.

The Lodge itself is located in the beautiful New Forest National Park in the South of England and provides the ideal environment for the type of work carried out by WIT and its associates.

The overall aim of the work at Ashurst Lodge is to develop a series of knowledge transfer mechanisms, particularly directed towards the exchange of information between academics and practitioners.

The modern campus has been developed around a large country house that is still the hub of all its activities. The site has been inhabited since Elizabethan times when it was developed as a 'technological' centre to produce gun powder for Her Majesty's fleet. This was then a highly skilled occupation and the first inhabitant of the Lodge was a scientist called Cornelius Stiphenson of Liege who was attracted to England by the incentives offered by Queen Elizabeth I.

It is nice to think that 500 years after Cornelius, Ashurst Lodge is once again a centre of research and development, albeit nowadays oriented towards peaceful activities.

At an early stage in Ashurst Lodge's development, WIT understood the importance of international collaboration which has now developed in a large number of links and agreements with many organisations throughout the world. This policy also led to the opening of an American Office in the Boston area, which has been very successful in terms of research projects, collaboration with industry and contacts with academic and research establishments in North America.

It is WIT's intention to continue evolving in response to the needs of the international scientific community while strengthening our commitment to society as a whole. That is one of the reasons why so many of WIT's current activities are of an interdisciplinary character. The dialogue across a wide spectrum of disciplines ranging from physical sciences to humanities is the way forward for the solution of many problems facing the modern world.

Director Carlos A. Brebbia

New Book Titles

Management of Scarce Water Resources: A Middle Eastern Experience

H. K. El-Naser

Dr Hazim El-Naser has applied his experiences as a water expert and ministerial position in Jordan by looking at a wide variety of water related topics that explore the problems the MENA countries face in respect to water resource management.

ISBN: 978-1-84564-414-7
£89.00

Boundary Collocation Techniques and their Application in Engineering

J.A. Kolodziej, A.P.Zielinski

This book deals with applications of the boundary collocation method – also called the generalized Trefftz approach – to solve problems in engineering and science. The method consists in the use of trial functions which satisfy the differential equations governing the problem.

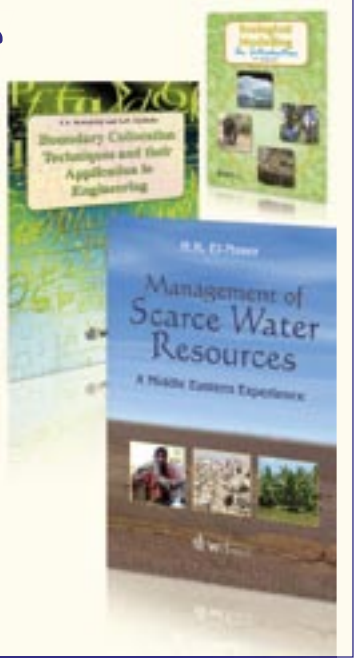
ISBN: 978-1-84564-394-2
£99.00

Ecological Modelling: An Introduction

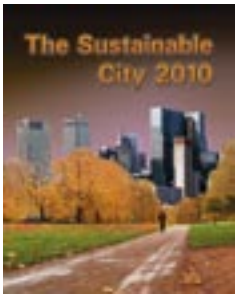
S.E. Jørgenson

Jørgensen clearly details the basic knowledge of ecological modelling, with useful illustrations and examples. These give the user an excellent tool to understand what the various model types/network calculations can do and when to use which type as a tool to solve a specific problem.

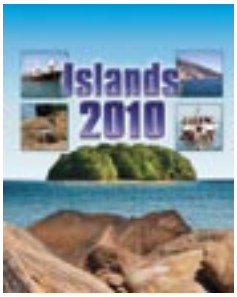
ISBN: 978-1-84564-408-6
£59.00



Conference Highlights



Proving to be popular and in its 6th 'term'. To be held on 14 – 16 April 2010 in La Coruña, Spain.



Our first conference on Island Sustainability, being held on the beautiful Brac Island, Croatia, 19 – 21 April, 2010.

To take place in the exciting destination of Bejing, China on 31 August – 2 September, 2010.

Distributor's Corner

Dawson Books ticks all the boxes

WIT Press, a global science and technology publisher, needs international partners to ensure the maximum exposure and sales of both print books and eBooks.

Dawson books was founded in the late 18th century when William Dawson was apprenticed to the famous London printer John Nichols before opening his own news agency in Cannon Street in 1809. Expansion into France in the 1820s and diversification into news distribution and periodical sales in 1890 culminated in the creation of Surridge Dawson, the parent company, which went on to acquire in 1991 the library supplier Bumpus from the late Robert Maxwell.

Quick to embrace new technologies with the introduction of its first computer in 1972, Dawson has continued to invest in and develop interactive automation; the most recent manifestation 'dawsonera' their new eBook platform and indeed the first eVendor to host WIT Press eBooks.

In conclusion, to paraphrase Diane Kerr, Managing Director, Dawson Books.

'The supply of books to libraries is our only business, the quality of service our major concern. To complement library activities we have first class products backed by technical excellence,that are recognised as setting the standard for our industry.'

Could WIT Press print books and eBooks be in better hands?
We do not think so!

Sail into our new reception

Our reception has recently undergone a make over. One feature wall has been painted in our corporate blue colour to represent the Wessex Institute of Technology. The boat, a symbol that connects both the Institue and WIT Press is displayed prominently. The effect, together with other improvements, modernises our recption area whilst emphasising our links with the area's historic past.

Southampton's origins date back to 70ad when the Romans first built a town called Clausentum on a bend in the River Itchen. A Saxon settlement called Hamwic, or Hamtun was later built on the other side of the River and by the 10th century, after the Norman Conquest, Frenchmen came to live in Southampton.

The town was developing into an important port and the town grew rapidly. By 1150 – 75 wealthy merchants populated the area, with the main export at that time being wool; the main import was wine from France or Spain.

In the Middle Ages there was a fast growing shipbuilding industry at Southampton and it was around this time that a representation of a medieval ship was first incorporated into the town's seal, reflecting the significance that shipping and the export trade had made to the town's growth, a fact that was later justified when during the hundred years war, in the 14th and 15th centuries, several naval vessels were built here for the King.

The early form of the sailing vessel on the seal was used as the basis for our logo. The vessel was redrawn, partly to make it more suitable for printing it in the various sizes at which it would be used, on our business stationery, marketing material, on the spines of our books and, as if to reflect the stark contrast from medieval times to that of today's technological world, on our websites too. It reflects our close ties with Southampton and our origins, as an organization, with this large modern sea-port.

Author's Corner

The dredging vessel 'Simon Stevin'

Jozef Devreese

The dredging vessel Simon Stevin, of the Jan De Nul Group, was launched in Bilbao in 2009. This technologically extremely advanced dredger is named after the pioneer scholar and engineer, who is the subject of the WIT Press book '*Magic is No Magic.' The Wonderful World of Simon Stevin*. (Authors: Jozef T. Devreese & Guido Vanden Berghe).

Simon Stevin (1548 – 1620), living in the Low Countries, a land of water and wind, was the first in history to be awarded patents (1586) in the field of dredging. Jan-Pieter De Nul, CEO of the Jan De Nul Group, is a civil engineer of distinction and could not have chosen a more appropriate name for his latest vessel.

Simon Stevin was not merely an engineer-inventor, he was a scholar whose contributions constituted a major step in the conceptual developments culminating in the 'scientific method.' His contributions cover a wide range of disciplines, in engineering and technology, mathematics (he is rightly considered the father of the decimal fraction system...) and physics, navigation, financial theory, fortifications and city planning, linguistics, theory of music etc. Stevin is often cited as one of the links in the chain of progress leading from Copernicus via Kepler, Gilbert and Galileo to Newton and Huygens.

Jozef Devreese

In a conversation with the editors of 'Author's Corner', Jozef Devreese explained that he had developed an increasing interest in Stevin during his career as a professor of theoretical physics at the University of Antwerp and has a keen interest in the history of science, technology and the Arts. Over the years Devreese focused his attention on the methodological significance of Stevin's work. He gave popular lectures about Stevin, co-organised expositions (Brussels, Bruges...) devoted to Stevin, etc. He developed a collaboration with his colleague Prof. Vanden Berghe (University of Ghent), who also lectured on Stevin and who had organised a Stevin-exposition in Ghent.

'...magic is only magic until it is properly understood; science was the means by which the unknown could be demystified.'

"This admirable, well-illustrated book describes Stevin's work and assesses the significance of his many contributions to the advancement of knowledge."
CHOICE

BBQ!

The Annual BBQ of Ashurst Lodge, home of WIT Press and the Wessex Institute of Technology (WIT), took place recently on a perfect summer's day. The BBQ, which has been held each year since the establishment of the Institute, at the Ashurst Lodge Campus; it was particularly successful and characterised by a friendly, relaxed atmosphere.

This year, the BBQ was unique, as it was also the occasion of the unveiling of a bas-relief by Pilar Perez Subias, wife of one of the members of the Board of Directors of WIT.

Pilar is a well-known Sculptress, with many important works of art to her credit. Her patrons comprise governmental institutions in Aragon, her native land and in Galicia, her adopted country. She designed, for instance, the official Coat of Arms of Aragon and has several monuments in the town of Zaragosa, including one to the Mediterraneo, an obelisk in Europe Square, the monument to the visually handicapped, and many other works of art. She has sculptures on several of the promenades in sea-side towns in Galicia and has works of art in different collections around the world.

Pilar produced an outstanding piece of art which, in the words of Professor Carlos Brebbia, Director of WIT, 'will contribute to the continuous improvement of the environment of the Institute."'

The sculpture depicts two deer buck fighting, representing a typical seasonal event and capturing the spirit of the New Forest.

Dr Julian Lewis, the local MP, attended the BBQ and gave a short speech before unveiling the bas-relief.

The summer BBQ continues to be a success year after year. It is also the occasion for Ashurst Lodge to thank all friends and partners who, in one way or another, contribute to its success.

Fun at the BBQ

Above: Dr Julian Lewis MP, Pilar Perez Subia & Carlos Brebbia

WIT FACT

'The Drifts'

One of the features of the New Forest, where WIT Press has its head offices, are its famous ponies. There are about 3,000 New Forest ponies wandering freely in the 37,500 hectares of open Forest and each year between August and October they are rounded up for tail marking in what is known locally as 'the Drifts'. There are 44 Drifts each year and in the Ashurst Drift the horses are driven into the farm adjacent to Ashurst Lodge.

Local New Forest Recipe

Apple Pie

Serves 6

- 700g cooking apples
- juice of half lemon
- short crust pastry made with 225g flour
- 125g sugar
- 4 tablespoons dark brown sugar
- 1 tablespoon flour
- good pinch ground nutmeg
- ½ teaspoon ground cinnamon
- 2 tablespoons raisins
- 2 tablespoons sultanas
- 2 tablespoons orange juice
- 15g butter

1. Preheat oven to 200°C. Peel, quarter and core the apples and slice thickly. Place in a bowl with the lemon juice.
2. Roll out 2/3 of the pastry and use to line a 28 x 15 cm oval pie dish.
3. Put sugar in a small bowl with the brown sugar, flour, nutmeg and cinnamon. Sprinkle a little of this mixture over the pastry base and rub in.
4. Drain the sliced apples and arrange in a layer over the pastry base. Sprinkle with a few chopped raisins and sultanas and a little of the sugar mixture. Repeat the layers until all the ingredients are used up. Sprinkle over the orange juice and dot with the butter.
5. Roll out the remaining pastry, brush the edges of the pastry base with cold water and cover the pie. Press the edges together to seal, then trim and flute. Make decorations with the pastry scraps and stick to the pie with water. Cut a hole in the middle to allow steam to escape.
6. Bake in the oven for 10 min, then lower the oven temperature to 190°C and bake for a further 25-30 mins.
7. Serve with thick cream or custard.

eBooks

The growing importance of eBooks in the international science and technology community has resulted in WIT Press forging strategic alliances with the major evendors.

Initially some 160 titles have been made available as eBooks and to facilitate collection development by librarians we have created four sublibraries.

eBooks are available individually or as part of one of the groups below:

Ecology & Environment:
- Air Pollution
- Design & Nature
- Earthquake Engineering
- Ecology
- Geomechanics & Geo-Environment
- Sustainable Development
- Water Resources

Architecture & The Built Environment:
- Architecture
- Historical Interest
- Structural Engineering
- Sustainable Development
- Transport Engineering

Engineering Sciences:
- Bioengineering
- Boundry Elements
- Damage & Fracture
- Electrical Engineering
- Environmental Engineering
- Fluid Mechanics
- Heat Transfer
- Marine & Offshore Engineering
- Materials & Manufacturing
- Structural Engineering

Information Technology & Communication:
- Information & Communication
- Mathematics & Statistics
- Numerical Methods

All WIT Press new, recent and forthcoming titles are in addition available as eBooks from:

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