ising crystal systems. At the botton of the scale are particles of information, *infons*. That is, just as matter and energy may manifest themselves in particulate form, so may information. To the two great classes of particles elucidated by physicists – fermions and bosons – representing matter and energy – we must add a third class: *infons*. Infons consist of particles which possess neither mass nor momentum but whose movement affects the organisational properties of a system. Obvious candidates for this class of particles include phonons, excitons, and the holes left in atomic shell structures upon ejecting electrons.

No sound theory of information will emerge until we undertand that information is a basic property of the universe – as 'real' as are matter and energy. The theory exploring the physical basis of information will be developed in a forthcoming book: *Information and the Internal Structure of the Universe* which is expected to be published in the Spring of 1990.

Yours faithfully,
TOM STONIER
Science and Society,
University of Bradford,
Bradford,
West Yorkshire BD7 1DB

Gordon Scarrott replies:

Dear Sir,

In informal discussions the terms 'organisation' and 'structure' are often used as though they were interchangeable. To avoid confusion in my formal paper I included a definition of an organised system (OS) that is close to accepted convention but perhaps more restrictive. Thus in my definition 'organisation' refers to a set of active elements that are cooperating for a purpose, ultimately survival. 'Structure' on the other hand refers to a passive pattern that may be regular as in a crystal or irregular as in a glass.

For example a living sponge has an ill defined irregular structure but exhibits organised activity directed to survival. In contrast a crystal has a regular structure but displays no activity at all so that it cannot be said to exhibit 'organisation'. Certainly atoms, molecules and crystals are structured but by the definition in my paper they do not qualify as organised systems. Even the solar system fails to qualify as an OS despite its continuous motion. If the orbit of an asteroid, obeying the well established laws of motion, should intersect the orbit of the earth there is no mechanism to prevent it nor is there is any survival imperative to steer such a mechanism. It would appear to me that perhaps Prof Stonier and Brian Gooch have not distinguished between structure and organisation.

However, I fully support Prof Stoniers final assertion that information is a feature of the universe. Life is manifestly an observable feature of the universe so that even if my suggestion that information is a feature of life survives, information will still be a property of the universe. Indeed we might hope that a link between information and life could shed light on the nature of life as well as the nature of information.

Yours faithfully
GORDON G. SCARROTT
34 Parkway,
Welwyn Garden City,
Hertfordshire AL8 6HQ

Announcement

5–9 NOVEMBER 1990

ICCC 90, New Delhi

Theme Technology for Mass Applications

India invites all those interested in computer communication and its application to attend the 10th biennial International Conference on Computer Communication – ICCC 90 to be held in New Delhi.

ICCC

The International Council for Computer Communication (ICCC) was founded in 1972 as a non-profit organisation. The objective of ICCC is the advancement of computer communication throughout the world. Sponsorship of the well-known ICCC international conferences, held every alternate year, is one of the principal activities of the Council.

India – the Host

ICCC 90 is being hosted by the Department of Electronics (DOE), and the Department of Telecommuniations (DOT), Government of India.

A series of conferences on computer communication beginning with Networks 80, have been milestones, marking scientific, technical and industrial development in this part of the world. They have given a significant impetus to developments in Information Technology in the developing world.

Conference City

New Delhi – the capital of India, steeped in history and tradition, is a very modern city. It has excellent facilities for the tourist as well as for conferences and conventions. It is fast becoming the conference capital of Asia, providing the best in conference facilities: large well-equipped conference halls, an excellent set of hotels, entertainment programmes of a high standard and aesthetic value, and fascinating pre and post-conference tours. New Delhi offers numerous opportunities to the visitor for picking up attractive products of traditional Indian arts and crafts, from air-conditioned emporia or directly from the craftsmen. A visit to New Delhi holds the promise of an unforgettable experience.

Venue

4 November 1990
Inauguration: at Vigyan Bhavan – or Siri Fort Auditorium.
3–8 November 1990
Tutorials, Technical Sessions, Executive Trace and Exhibition: at the Ashok Hotel, New Delhi.
The Conference Venue is the well laid out, majestic Ashok Hotel. It has the distinction of having hosted several prestigious international conferences and conventions.

Language

English will be the official language of the conference.

Registration Fees

- Conference – $400
- Tutorials/Workshops – $175
- Executive Track – $200
- Accompanying person – $125

Conference Registration on-site

Sunday, 4 November–Monday, 5 November 1990.

Technical Programme

Tutorials/Workshops

Saturday, 3 November – Sunday, 4 November 1990.

Topics under consideration:

- Academic and research networks
- Computer communication for agriculture and meteorology
- Industrial communication networks (For factories and industrial plants)
- Integrated services digital networks
- Local area networks
- Networks for healthcare and disaster management
- Network management and network security.

Executive Track

Monday, 5 November 1990

Details:

- For senior executives – Chairmen, Presidents, Chief Executive Officers or Managing Directors
- Will cover information technology developments relevant to business and industry.

Technical Sessions

Monday, 5 November to Thursday, 8 November 1990

- 4 plenary sessions, including 2 panel discussions
- 36 parallel sessions

Technical Visits

Friday, 9 November 1990.
It is planned that visitors would be able to choose from technical visits to Organisations in:

Bangalore, Bombay, or Delhi

Exhibition

Saturday, 3 November–Friday, 9 November 1990.

A non-commercial exhibition will project the state-of-the-art developments from the world over.

Conference topics

1. Communication aspects
2. Computer communications impacts on society
3. Data transmission
4. Networking
5. Open Systems Interconnection (OSI)

For further information contact:

Ms Saroj Chowla, Oganising Secretary, ICCC 90 Secretariat, CMC Limited, A-5, Ring Road, South Extension Part-I, New Delhi-110049 India