Information Presentation – Phase 1

The first three days will be the Information Presentation Phase of the Congress. The first day **Experts Day** will include the Keynote Session followed by a series of presentations by experts in Computing and Communications. This will be followed by more detailed specialist presentations in each track on the second and third days of the Congress, which have been designated **Specialist Days**.

Track 1 Hardware and Software Technology

The goal of track 1 is to examine and assess the state of both the hardware and software technologies with respect to computer and communication systems. To achieve this goal, the track is divided into two streams. The first stream deals with examination of the limits of the technology, while the second stream examines how far current systems are from these limits.

Stream A – Limits

– Theoretical/Physical Limits
– Hardware/Software Synergy
– Software Evolution Limits

Stream B – How Close Are We To The Limits?

– Interaction Technologies
– Implementation Technologies
– State of the Art of Communication Technology
– State of the Art of Computing Technology.

Expert speakers on **day 1** will give presentations on the topics listed above. The track will continue on **day 2** with presentations by **invited speakers** on **Computer and Communications Integration: How Does Industry Cope**, **Personal Computer and Communications Environments**, **Design Techniques**, **Network Management**, **Dependability**, and **Distributed Computing in Media and the Arts**.

Thereafter, **day 2** and **day 3** are open for **submitted papers** and **informal presentations** on **limits** and/or **how close are we to the limits**. **Papers are solicited** in the topic areas listed above plus **Optical and Bio Computing**, **High Speed Networks**, **Massively Parallel Systems**, **VLSI**, and **Distributed Computing in Media and the Arts**.

Submitted papers must fit to the function of the track, that is, they must cover **limits** and/or **how close are we to the limits?** Selection of papers will be made according to these criteria.

Some of the distinguished experts who have already accepted invitations to speak on Computer and Communication Technology include **Desmond Hudson**, **Abe Peled, Ian Sugarbroad**, **R. C. Williams**, and **Gerard Holzmann**.

Track 2 Computer and Communications Applications

This track focuses on two streams: **New and Important Applications**, and **Application Design Methods**. The function of this track within the congress is to provide the most up-to-date and future-oriented information on computer and communications applications and their design, implementation and management methods. Although these topics can not be covered in depth, the invited speakers and the solicited contributions will be selected in such a way that they provide the necessary basis for assessment of issues like **Why Should We Build It?** and **Who Is In Control – Users or Applications Systems?** which will be taken up on **Issues Day**.

The track will be introduced on **Experts Day** with:

Stream A – New and Important Applications

– Integrated Traffic Management
– Drug Design With High Speed Computers
– Personal Assistance Computers

Stream B – Application Design Methods

– Vendor Independent Platforms for Application Design
– Experience with Participative Application Development
– Integration of Applications Under User Control into a Single Consistent User Interface.

The track will continue on **day 2** with **invited papers** on **The Virtual Factory**, **The Mobile Office**, **Intelligent Buildings**, **Application Programming on the Knowledge Level**, and **Object Oriented Application Management.**

Thereafter, **day 2** and **day 3** are open for **submitted papers and informal presentations**, from the following topics: **Personal and Home Applications**, **Business and Government Applications**, **Laboratory Applications**, **Public Service Applications**, **System Simulation**, and **Service Management.**

Submitted papers must fit to the function of the track, that is, they must cover either new and important applications or promising application design methods. Selection of papers will be made according to these criteria.

Track 3 Role of Computers and Communications in Solving Major World Problems

Track 3 deals with impacts, and more specifically how Computers and Communications can help to solve problems such as famine, recession, mismanagement, professional conduct, literacy, and health.

Stream A – **Impacts**
issues normally addr
Stream B – **Impacts**
with issues which m
cooperation.

Expert speakers c
presentations on **Ch**
in Health Care, **C**
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Practices, and **Profe**

The track will conti
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Society, **National P**
Networks, **Econom**
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Thereafter, **day 2** ar
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Kraemer(?), **Tod M**
Negroponte(?), **S**
Wagner, **Heinz Zem**

Track 4 Four

Track 4 deals wit
disciplines which ar
communications scie
speakers will prese
following key areas:

– Algorithms and
– Automata and F
– Computability a
– Computational
– Cryptography
– Logics of Progra
– Machine Learni
– Parallel and Dis
– Semantics