



Sheraton Seattle Hotel & Towers, Seattle, Washington  
September 18-22, 1993

Presents the 1993 VIRTUAL REALITY ANNUAL INTERNATIONAL SYMPOSIUM

Institute of Electrical and Electronics Engineers

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# IEEE Virtual Reality Annual International Symposium

# VRAIS '93

September 18-22, 1993

Sheraton Seattle Hotel & Towers  
Seattle, Washington



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## IEEE VIRTUAL REALITY ANNUAL INTERNATIONAL SYMPOSIUM

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Sponsored by  
The Virtual Reality Technology Committee of the IEEE Neural Networks Council  
In Cooperation With

SPIE (International Society for Optical Engineering)	IEEE Seattle Section
IEEE Industrial Electronics Society	IEEE Information Theory Society
IEEE Lasers and Electro Optics Society	IEEE Oceanic Engineering Society
IEEE Robotics and Automation Society	IEEE Signal Processing Society

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IEEE Circuits & Systems Society	IEEE Communications Society
IEEE Computer Society	IEEE Control Society
IEEE Engineering in Medicine & Biology Society	IEEE Industrial Electronics Society
IEEE Industry Applications Society	IEEE Information Theory Society
IEEE Lasers and Electro-Optics Society	IEEE Oceanic Engineering Society
IEEE Power Engineering Society	IEEE Robotics and Automation Society
IEEE Signal Processing Society	IEEE Systems, Man & Cybernetics Society
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# Virtual Reality Annual International Symposium 1993

The Virtual Reality Technical Committee of the IEEE Neural Networks Council cordially invites you to attend the First Virtual Reality Annual International Symposium to be held at the Sheraton Seattle Hotel & Towers, Seattle, Washington, September 18-22, 1993.

Virtual Reality has grown in recent years into an active, highly interdisciplinary field of research, development, and applications prototyping. It goes by several names including virtual environments, virtual worlds, artificial reality, and advanced computer-human interfaces. Whatever it is called, there exists many challenges to overcome in science, engineering, and technology development before the vision of virtual reality can be reached.

The goal of this conference is to bring together workers in the many diverse technical disciplines contributing to this field, and provide a forum for the interchange of timely/quality theories, experimental results, and technological developments. We encourage you and your colleagues to actively participate in this first IEEE conference in virtual reality science and technology.

## Plenary Speakers

### Plenary Symposium I Monday - September 20

#### Virtual Reality Hardware

- **Scott Fisher**, Telepresence
- **Myron Krueger**, Artificial Reality
- **Roy Lantham**, Roy Lantham Associates

### Plenary Symposium II Tuesday - September 21

#### Virtual Reality Software

- **Warren Robinett**, Univ. of North Carolina
- **Creve Maples**, Sandia National Laboratories
- **Michitaka Hirose**, University of Tokyo

### Plenary Symposium III Wednesday - September 22

#### Human Factors and Perception

- **Larry Stark**, Univ. of California at Berkley
- **Jannick Rolland**, Univ. of North Carolina