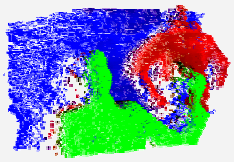
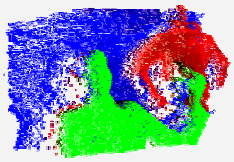


Kurzprofil
Prof. Dr.-Ing. Hubert Roth

Geburtsdatum	21.03.1954
Studium, 1974-1979	Elektrotechnik an der Universität Karlsruhe mit Schwerpunkt in Regelungstechnik und Informatik
1979-1983	Wissenschaftlicher Mitarbeiter am Institut für Regelungs- und Steuerungssysteme (Prof. Dr. Dr. Föllinger) der Universität Karlsruhe
Promotion, 1983	Ein neues Verfahren zur Ordnungsreduktion und Reglerentwurf auf der Basis reduzierter Modelle
1983-1988	Systemingenieur bei der Fa. Dornier System, Bereich Raumfahrt, Abteilung Regelungstechnik
1988-2000	Professor für Regelungs- und Sensortechnik an der Fachhochschule Ravensburg-Weingarten
2000-2001	Lehrstuhlvertretung in der Fachgruppe für Regelungs- und Steuerungstechnik an der Universität Siegen
Seit 2001	Leiter der Fachgruppe für Regelungs- und Steuerungstechnik im Fachbereich Elektrotechnik und Informatik der Universität Siegen
2000	Übernahme der Leitung des Projektbereichs 4, “Automation, Mechatronik und Medizintechnik” im Zentrum für Sensorsysteme (ZESS)
Forschungspreise 2001	• Verleihung des Schweizer Innovationspreises, St. Gallen, Schweiz • Verleihung des Kulturpreises der Städte Ravensburg und Weingarten, Weingarten
Lehrgebiete:	• Regelungstechnik, • Robotik • Mechatronische Systeme (in Englisch) • Advanced Control (in Englisch) • Intelligent Control (in Englisch) • Attitude Control for Space Applications (in Englisch)
Forschungs- u. Arbeitsgebiete:	• Navigation und Lokalisation bei kooperierenden mobilen Robotern • Regelung in der Luft- und Raumfahrt • Bahnplanung und Hindernisvermeidung bei Manipulatoren • Tele-Control, Tele-Manipulation, Tele-Präsenz • E-learning
Aktuelle Vorhaben	• Navigation mobiler Roboter mit Hilfe der PMD-Kamera • Search and Rescue Robotics • Outdoor Robotics • Environmental Exploration (E^2N)
Aktuell:	• Seit 1992 Leiter des Steinbeis-Transferzentrums „Angewandte Rechner- und Software-Technologien“ • Seit 1994 Mitglied im “Technical Committee on Components and Instruments” der “International Federation of Automatic Control” • Seit 2002 Leiter des “Technical Committee on Computers and Telematics” der “International Federation of Automatic Control”
Weitere Informationen	http://www.uni-siegen.de/rst



Schriftenverzeichnis
Prof. Dr.-Ing. Hubert Roth

1. Niramon Ruangpayoongsak, Hubert Roth, Rudolf Schwarte: Position Calibration of a Mobile Robot Based on 3D Vision. 16th IFAC World Congress, Prague, Czech Republic, from July 4 to July 8, 2005.

2. Alexander Prusak, Hubert Roth, Rudolf Schwarte: Application of 3D-PMD Video Cameras for Tasks in the Autonomous Mobile Robotics. 16th IFAC World Congress, Prague, Czech Republic, from July 4 to July 8, 2005.

3. O. Roesch, H. Roth, M. Klinkov: Vibration Damping of a Flexible Structure. VSTech2005, The First International Symposium on Advanced Technology of Vibration and Sound, page 347-351, Mjyajima, Hiroshima, Japan, 2005.

4. O. Roesch, H. Roth, A. Iqbal: Extended Stability margins on controller Design for Nonlinear Input Delay Systems. IFAC World-Congress, Prague, 2005.

5. O.J. Roesch, M. Ruehl, H. Roth: Feedback Control with Varying Time Delays by a Dead-Beat Controller. IPSI 2005 SPAIN, International Conference on Advances in the Internet, Processing, Systems, and Interdisciplinary Research, Girona, Spain, 2005.

6. Otto J. Roesch, Alexander Prusak, Hubert Roth: Remote Controllable Vibration Damping Platform. 1st IFAC Symposium on Telematics Applications in Automation and Robotics, June 2004, Helsinki, Finland, page 155-160.

7. Frauke Driewer, Herbert Baier, Klaus Schilling, Jiri Pavlicek, Libor Preucil, Niramon Ruangpayoongsak, Hubert Roth, Jari Saarinen, Jussi Suomela, Aarne Halme, Miroslav Kulich, Jan Kout: Hybrid Telematic Teams for Search and Rescue Operations. IEEE International Workshop on Safety, Security and Rescue Robotics, Gustav Stresemann Institute, Bonn, Germany, 24. - 26. May 2004.

8. O. J. Rösch, H. Roth: Internet Laboratories in the Control Engineering Education. 15th EAEEIE Annual Conference on Innovations in Education for Electrical and Information Engineering, Mai 2004, Sofia, Bulgaria, ISBN 954-9518-22-1, page 34 - 38.

9. Toma L. Dragomir, Hubert Roth and Otto J. Roesch: Control Loop Adjustment of Plant Uncertainties. SCIENTIFIC BULLETIN of "Politehnica" University of Timisoara, ROMANIA, Transactions on AUTOMATIC CONTROL and COMPUTER SCIENCE, Vol. 49 (63), No. 1, 2004, ISSN 1224-600X, page 227 - 234.

10. Hubert Roth, Otto Roesch, Alexander Prusak, Joerg Kuhle: Experiments in mechatronics for remote laboratories. 21st ICDE World Conference on Open Learning & Distance Education, Lifelong Learning in the Networked World; February 2004, Hong Kong, Page 82.

11. H. Roth, R. Schwarte, N. Ruangpayoongsak, J. Kuhle, M. Albrecht, M. Grothof, H. Heß: 3D Vision Based on PMD-Technology and Fuzzy logic control for Mobile Robots. Second International Conference on Soft Computing, Computing with Words and Perceptions in System Analysis, Decision and Control (ICSCCW – 2003), Antalya, Turkey, 9. - 11. September 2003.

12. Klaus Schilling, Hubert Roth, Christina Spilca: A TELE-EXPERIMENT ON ROVER MOTOR CONTROL VIA INTERNET. Journal of Robotics Systems, 2003.

13. Hubert Roth, Otto Rösch, Alexander Prusak: Internetbasierte Laborexperimente für die regelungstechnische Ausbildung. at–Automatisierungstechnik (2003) 11, Oldenbourg Verlag, S. 518 - 524.

14. H. Roth, A. Prusak, O. Rösch: Internetbasiertes Buchungs- und Verwaltungssystem “Learn2Control” für Tele-Experimente. (Fachtagung Telematik 2003), June 2003 Siegen, Germany, ISBN 3-18-091785-7, page 105 - 114.

15. H. Roth, O. Roesch, A. Prusak: Virtual Laboratories for Experiments in Mechatronics. GMA Kongress 2003 “Automation und Information in Wirtschaft und Gesellschaft”, Juni 2003, Baden Baden, Germany, ISBN 3-18-091756-3, page 331 - 338.

16. H. Roth, O. Roesch, A. Prusak, J. Kuhle, A. Hernán González: Mechatronic Experiments in the Engineering Education. (14th EAEEIE International Conference on Innovations in Education for Electrical and Information Engineering), June 2003, Gdansk, Poland, ISBN 83-918622-0-8, page 15.

17. Roth, Hubert; Rösch, Otto; Kuhle, Jörg; Prusak, Alexander: Virtual laboratories for control engineering education. (UNESCO (UICEE) Annual Conference on Engineering Education Cairns/Australien February) 2003.

18. K. Dinesh Kumar; L. Karunamoorthy; Roth, Hubert; T. T. Mirnalinee: WEB Based Real-Time Mobile Access to Integrated Automation. (ICARCV 2002, Control Automation Robotics Vision Singapore 2.-5. December) 2002.

19. Roth, Hubert; Rösch, Otto; Kuhle, Jörg; Prusak, Alexander; A. Herán González: Virtuelle Labors for Experimente in der Mechatronik. (UNESCO (UICEE) World Transactions on Engineering and Technology Education Melbourne/Australia) 2002.

20. George S. Georgiev; Roth, Hubert; Silvia Stefanova; Georgi T. Georgiev; Emil Stoyanov; Rösch, Otto: How and why to build and use virtual laboratories. (UNESCO (UICEE) World Transactions on Engineering and Technology Education Melbourne/Australia) 2002.

21. Roth, Hubert; Prusak, Alexander: E-Learning-Portal "Learn2Control". In: Buletinul Stiintific al Universitatii "Politehnica" din Timisoara, Romania, Seria Automatica si Calculatoare, Periodica Politechnica, Transactions on Automatic Control and Computer Science 47 (61) (2002)

22. Roth, Hubert: Development of a modular surgery robot system. (Collaboration program to develop the Bachelor of Emerging Technologies, Azerbaijan State Oil Academy Baku, Azerbaijan November) 2002.

23. K. Dhinesh Kumar; Roth, Hubert; L. Karunamoorthy: Critical success factors for the implementation of integrated automation solutions with PC based control. (The 10th Mediterranean Conference on Control and Automation (MED) Lisabon/Portugal) 2002.

24. Silviya Stefanova; Emil Stoyanov; Georgi Georgiev; Hubert Roth; Otto Roesch: An approach of standardizing the Virtual Labs structure. (13th EAEEIE International Conference on Innovations in Education for Electrical and Information Engineering York, England April) 2002. 5 Seiten.

25. Otto J. Rösch, Klaus Schilling and Hubert Roth: Haptic interfaces for the remote control of mobile robots. Control Engineering Practice, November 2002. In Volume 10, Issue 11, Pages 1309-1313.

26. H. Roth, O. Roesch, J. Kuhle, A. Prusak, A. Hernán González, G. Georgiev, G. Lehov, S. Stefanova: Remote laboratories for experiments in mechatronics. Monash Engineering Education Series, 6th Baltic Region Seminar on Engineering Education, September 2002, p. 75 - 78.

27. Roth H., O. Roesch, C. Arhelger, W. Chonnaparamutt: Kalman Filter and Controller Design for the Mobile Robot Experiment via Internet. Workshop, August 2002, Sherbrooke Canada.

28. Roth, H., K. Schilling, O. Roesch: Haptic Interfaces for Remote Control of Mobile Robots. 15th IFAC World Congress b’02, July 2002, Barcelona Spain, page 212.

29. Roth, H., K. Schilling, O. Roesch: Control of Mobile Robots with Force Feedback Devices. Mechatronics 2002, June 2002, Enschede Netherlands, ISBN 90 365 17672, page 100.

30. G. Georgiev, E. Stoyanov, I. Tscvetkov, S. Stefanova, D. Stoykov, H. Roth: Step by Step Towards the Virutal Lab Organisation. International Journal Information Theories & Applications, Volum 9, Number 4, 2002, pp. 153-160.

31. Silviya Stefanova, Emil Stoyanov, Georgi Georgiev, Hubert Roth, Otto Roesch: An approach of standardizing the Virtual Labs structure. 13th EAEEIE International Conference on Innovations in Education for Electrical and Information Engineering, April 2002, York - England, ISBN 1-85911-009-6, page 5.

32. Klaus Schilling, Hubert Roth and Robert Lieb: Remote Control of a 'Mars Rover' via Internet - to Support Education in Control and Teleoperations. Acta Astronautica Vol. 50, No. 3, pp. 173-178. 2002.

33. R. D. Irwin, T. M. Adami, H. Roth, G. Münst, O. Roesch: Sensor and Control Concepts for the Internet-Based Flexlab Experiment. Workshop on Internet Based Control Education, IBCE'01, December 2001, Madrid - Spain, page 231 - 234.

34. Klaus Schilling, Hubert Roth und Otto Rösch: Fernsteuerung und Telesensorik für mobile Roboter in Raumfahrt, Industrie und Ausbildung. at - Automatisierungstechnik 49 (2001) 8, Oldenbourg Verlag, Seite 366-372.

35. Cristina Spilca, Klaus Schilling, Hubert Roth: Developing a Motor Control Experiment for a Virutal Laboratoy. Proceedings 1st IFAC Conference Telematics Applications in Automation and Robotics, FH Ravensburg-Weingarten Juli 2001, Seite 391-395.

36. Otto J. Rösch, Klaus Schilling, Hubert Roth: Haptic Interface for Remote Control of Mobile Robots. Proceedings 1st IFAC Conference Telematics Applications in Automation and Robotics, FH Ravensburg-Weingarten Juli 2001, Seite 143-147.

37. John Ogness, Klaus Schilling, Hubert Roth: A System to Facilitate Telematic Implementation. Proceedings 1st IFAC Conference Telematics Applications in Automation and Robotics, FH Ravensburg-Weingarten Juli 2001, Seite 117-122.

38. Hubert Roth, Gerhard Münst: Sensing and Control for Flexible Structures. Proceedings of the Workshop "Tele-Education in Mechatronics Based on Virutal Laboratories", FH Ravensburg-Weingarten Juli 2001, Seite 60.

39. Cristina Spilca, Klaus Schilling, Hubert Roth: Developing a virtual laboratory experiment. Proceedings of the Workshop "Tele-Education in Mechatronics Based on Virutal Laboratories", FH Ravensburg-Weingarten Juli 2001.

40. K. Schilling, H. Roth, O. J. Rösch: Virtual Laboratories for Engineering Education. 4th Unesco International Engineering Education / UICEE - Annual Conference on Engineering Education, Feb. 2001 Bangkok, Thailand.

41. K. Schilling, H. Roth, O. J. Rösch: Mobile Mini-Robots for Engineering. Education 4th Unesco International Engineering Education / UICEE - Annual Conference on Engineering Education, Feb. 2001 Bangkok, Thailand.

42. Roth, Hubert: Performing Control Experiments in Virtual Laboratories via Internet. ACE 2000 Symposium, Sea World Nara Resort, Australia, 17th - 19th December, 2000.

43. K. Schilling, H. Roth, O. J. Rösch: Virtual Laboratories to Perform Experiments in Mechatronics. Proceedings 11th EAEEIE Conference, Ulm 2000, pp. 208 - 212.

44. K. Schilling, H. Roth, O. J. Rösch: Fernsteuerung Mobiler Roboter. Forschungstag der Fachhochschulen Baden-Württemberg, November 2000.

45. Klaus Schilling, Hubert Roth, Otto Rösch: Fernsteuerung mobiler Roboter in der Tele-Ausbildung. horizonte 17, November 2000, Seite 19-20.

46. K. Schilling, H. Roth, O. J. Rösch: Sensordatenfernerfassung und Fernsteuerung von Maschinen über das Internet. Siemens Automatisierungskreis, Konstanz, Mai 2000.

47. K. Schilling, H. Roth, O. J. Rösch: Mechatronik Experimente in Virtuellen Labors. KI - Künstliche Intelligenz 2/2000, pp. 41 - 46.

48. K. Schilling, H. Roth, O. Rösch: Mechatronik-Experimente in Virtuellen Labors. Dokumentation Workshop VVL, Aalen 1999, S. 37 - 44.