
CURRICULUM VITAE OF DAN D. V. BHANDERI

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PERSONAL DATA

Name: Dan D. V. Bhanderi
Degree: M.Sc.E.E., Ph.D.
Birth: May 4th, 1977 in Vejle, Denmark
Gender: Male
Citizenship: Danish

CURRENT AFFILIATION:

Systems & Software Engineer
Terma A/S
Vasekær 12
DK-2730 Herlev
Denmark

EMPLOYMENT

2007 - present Systems & Software Engineer, Terma, Denmark
2004 - 2007 Assistant Professor, Aalborg University, Denmark
2001 - 2004 Ph.D. Student, Aalborg University, Denmark
1999 - 2001 ASP/SQL Web programmer vejtid.dk (Free-lance), Dansk Ve-
jtidskrift, Denmark
1998 - 2000 Windows Applications Lecturer (Free-Lance), Data Instituttet,
Denmark

EDUCATION

2001 - 2005 Ph.D. Control Engineering, Aalborg University, Denmark
Thesis Title: Spacecraft Attitude Determination with Earth
Albedo Corrected Sun Sensor Measurements
Supervisor: Assoc. Prof. Thomas Bak
1996 - 2001 M.Sc. Electrical Engineering, Aalborg University, Denmark
Thesis Title: Attitude Estimator for Rømer

Supervisor: Assoc. Prof. Thomas Bak

PROFESSIONAL ACTIVITIES

PROJECTS/RESPONSIBILITIES

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|----------------|---|
| 2007 - present | ASIM ISS Columbus External Payload, Engineer Manager, Terma A/S, Denmark |
| 2007 | Intelligent Autonomous Systems Master Program, Program Coordinator, Aalborg University, Denmark |
| 2006 - 2007 | AAUBOT bipedal robot, Co-Manager, Aalborg University, Denmark |
| 2005 - 2006 | Co-Founding of the Danish Doctoral School of Space Science and Technology, Aalborg University, Copenhagen University, Danish Space Center, Risø National Laboratory, Technical University of Denmark, Denmark |
| 2004 - 2007 | Member of Danish Space Consortium, Public Communications and Education Forum |
| 2004 - 2005 | Member of NFAR, Netværk for Formidlere af Astronomi og Rumfart (Network of Communicators of Astronomy and Space) |
| 2004 - 2005 | Baumanetz satellite, On-Board Computer Deliverable Program Manager, Aalborg University, Denmark |
| 2003 - 2007 | AAUSAT-II satellite, System Engineering Manager, Aalborg University, Denmark |
| 2003 | RABBIT satellite, Attitude Control System Lead, Stanford University, California |
| 2001 - 2003 | AAU CubeSat satellite, Steering Committee Member/Sub-system Supervisor, Aalborg University, Denmark |
| 2001 - 2002 | Rømer satellite, Attitude Control System Designer, Aalborg University, Denmark |

EXTERNAL VISITS

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| 2003 | Visiting Researcher, 6 months, Department of Aeronautics and Astronautics, Stanford University, California |
| 2000 | Stagiare, 4 months, European Space Research and Technology Center, European Space Agency, The Netherlands |

PROGRAM COMMITTEE MEMBER

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| 2003 | Nordic MATLAB Conference, Copenhagen, Denmark, October 21-22 |
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CONFERENCE ATTENDANCE

- 2006 American Institute of Aeronautics and Astronautics, Guidance, Navigation, and Control Conference, Keystone, Colorado, August 21-24
- 2005 American Institute of Aeronautics and Astronautics, Guidance, Navigation, and Control Conference, San Francisco, California, August 15-18
- 2003 Nordic MATLAB Conference, Copenhagen, Denmark, October 21-22
- 2003 American Institute of Aeronautics and Astronautics, Guidance, Navigation, and Control, Austin, Texas, August 11-14
- 2001 Nordic MATLAB Conference, Oslo, Norway, October 17-18

CONFERENCES HOSTED/CO-ORGANIZED

- 2005 Space Technology and Education Conference, Aalborg University, Denmark, April 6-8, 2005

CONFERENCE SESSIONS/PAPERS PEER REVIEW

- 2003 Elsevier, Journal on Aerospace Science and Technology
- 2003 Institute of Electrical Engineers, Proceedings on Control Theory and Applications
- 2003 European Control Conference, Cambridge, UK, September 1-4
- 2002 Sixth World Conference on Integrated Design and Process Technology, Pasadena, CA, June 23-28

PROFESSIONAL DEVELOPMENT COURSES

- 2007 University Teacher Education for Assistant Professors 7 ECTS, Aalborg University
- 2004 Course in Patenting for Researchers, 1.5 ECTS, Danish Patent and Trademark Office
- 2003 Modeling and Control of Hybrid Systems, 3.5 ECTS, Dutch Institute of Systems and Control
- 2002 Hybrid Systems Workshop, 1.5 ECTS, Danish Informatics Network in the Agricultural Sciences
- 2002 Pedestrian Approach to Non-Linear Control Theory, 3.75 ECTS, Aalborg University
- 2002 Advanced Mathematics for Ph.D. candidates in the Engineering Sciences: Analysis and Topology, 5.0 ECTS, Aalborg University
- 2002 Automata and Formal Logic, 2.5 ECTS, Aalborg University

2001	Writing and Reviewing Scientific Papers, 3.75 ECTS, Aalborg University
2001	Philosophy of Science and Technology, 2.5 ECTS, Aalborg University
2001	The Scientific Undertaking, 2.5 ECTS, Aalborg University
2001	Problem Based Learning, 1 ECTS, Aalborg University

PUBLICATIONS

1. Nielsen, J. D., Bhanderi, D. D. V., *The Engineering Space Workforce of Tomorrow - The Integrated Space Engineer*. In AIAA Space 2007 Conference and Exposition Proceedings, Long Beach, California, 2007.
2. Bhanderi, D. D. V., *Modeling Earth Albedo Current on Sun Sensors for Improved Vector Observation*. In AIAA Guidance, Navigation and Control Proceedings, Keystone, Colorado, 2006.
3. Nielsen, J. D., Alminde, L., Bisgaard, M., Laursen, K. L., Bhanderi, D. D. V., *A Large Scale Problem Based Learning Inter-European Student Satellite Construction Project*. Contributions to the International PBL Conference in Lima, Peru, 2006.
4. Bhanderi, D. D. V., Bisgaard, M., Alminde, L., Nielsen, J. D., *A Danish Perspective on Problem Based Learning in Space Education*. IEEE Aerospace and Electronic Systems, Vol. 21(7):S_19 - S_23, 2006.
5. Amini, R., Larsen, J., Izadi-Zamanabadi, R., Bhanderi, D. D. V., *Design and Implementation of a Space Environment Simulation Toolbox for Small Satellites*. In 56th International Astronautical Congress, Fukuoka, Japan, 2005.
6. Bhanderi, D. D. V., Bak, T., *Modeling Earth Albedo for Satellites in Earth Orbit*. In AIAA Guidance, Navigation and Control Proceedings, San Francisco, California, 2005.
7. Bhanderi, D. D. V., *Spacecraft Attitude Determination with Earth Albedo Corrected Sun Sensor Measurements*. Ph.D. Thesis, Aalborg University, 2005.
8. Nielsen, J., Bisgaard, M., Alminde, L., Bhanderi, D., *Space Related Education at the University of Aalborg, Denmark*. Nordic Space Activities, Vol. 13(No. 2):pp. 8-14, 2005.
9. Alminde, L., Bisgaard, M., Bhanderi, D., Nielsen, J. D., *Experience and Methodology gained from 4 years of Student Satellite Projects*. In Recent Advances in Space Technologies Conference, Istanbul, Turkey, 2005.

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10. Bak, T., Bhanderi, D., Quottrup, M., *Rømer ACS SC Simulator*. Technical Report, Aalborg University, 2002.
 11. Bak, T., Bhanderi, D., Blanke, M., Niemann, H., Noteborn, R., Quottrup, M., Ziegler, B., *Rømer ACS Simulator*. Technical Report, Aalborg University, 2002.
 12. Bhanderi, D., *Rømer ACS Algorithms Verification and Validation*. Technical Report roemer/iesp/sus/dd/0002(1), Aalborg University, 2001.
 13. Bhanderi, D., *Attitude Estimator For Rømer*. M.Sc. Thesis, Aalborg University, 2001.
 14. Bhanderi, D., *Laser Metrology for SMART-2 with Spherical Mirror as Formation Reference*. European Space Research and Technology Center, European Space Agency, 2001.

TEACHING

SEMESTER COORDINATION

2007	10th Semester, Intelligent Autonomous Systems
2007	8th Semester, Intelligent Autonomous Systems
2006	5th Semester, Computer Engineering

SUPERVISION

2007	Development, Modeling and Control of a Humanoid Robot, Group 1033, 9th-10th Semester Master Thesis, Intelligent Autonomous Systems
2007	Three -Axis Satellite Attitude Determination Using Sun and Earth Albedo Vectors, Group 833, 8th Semester, Intelligent Autonomous Systems
2007	SMS Controlled Automation Unit, Group E4-411. 4th Semester, Electrical Engineering
2006	Using Bluetooth Parked Slave Broadcast for DMX-512 Communication, Group 730, 7th Semester, Control Engineering
2006	A Master/Slave based Session Layer Protocol for Real-Time Wi-Fi, Group 731, 7th Semester, Control Engineering
2006	Mission Control Client for GENSO, Group 552, 5th Semester, Computer Engineering
2006	Co-Existence of 802.11g and Bluetooth, Group 839a, 8th Semester, Distributed Systems
2006	Simulated Control System, Group 2, 1st Year, Master in Industrial Information Technology

2005	Darwin Formation Control and Micro-Meteoroid Impacts, Martin Kragelund, 9th Semester, Intelligent Autonomous Systems
2005	Thrust Vector Control Analysis and Design for the VEGA Launch Vehicle, Martin Green, 9th Semester, Intelligent Autonomous Systems
2005	PolarBot - Towards Deployment in Antarctica, Rasmus Stougaard, 9th Semester, Intelligent Autonomous Systems
2005	WLAN Real-Time Properties with Respect to DMX-512 Usage, Group 734, 7th Semester, Control Engineering
2005	Attitude Control System for the AAUSAT-II Satellite, Group 834, 8th Semester, Intelligent Autonomous Systems
2005	Attitude Determination System for the AAUSAT-II Satellite, Group 833, 8th Semester, Intelligent Autonomous Systems
2004	Attitude Determination System for the AAUSAT-II Satellite, Group 830b, 8th Semester, Intelligent Autonomous Systems
2004	Development of Command and Data Handling System for AAUSAT-II, Group 720, 7th Semester, Informatics
2002	Guidance, Formation Flying Linear Kinematics and Dynamics for a 3 Spacecraft Interferometer GNC, Thomas Clausen, 9th Semester, Intelligent Autonomous Systems
2002	Bluetooth as a Replacement for DMX-512?, Henrik Waaben, B.S. Thesis, Control Engineering
2002	DMX Light Control Unit, Group D4-457. 4th Semester, Computer Engineering
2001	Designing On Board Computer for the AAU Cubesat, Group 732, 7th Semester, Control Engineering
2001	Data Handling System for the AAU Satellite, Group 720, 7th Semester, Informatics
2001	Simplified Attitude Control System of the Rømer Satellite, Group 550, 5th Semester, Computer Engineering

COURSE LECTURES

2007	Structured System Development, 4th Semester, Electrical and Computer Engineering
2006	Estimation and Sensor Information Fusion, 9th Semester, Intelligent Autonomous Systems
2006	Databases, 7th Semester, Control Engineering
2006	Matlab, 2nd Semester, Basic Study Programme of Engineering, Science and Medicine
2006	Structured System Development, 4th Semester, Electrical and Computer Engineering

- 2005 Estimation and Sensor Information Fusion, 9th Semester, Intelligent Autonomous Systems
- 2004 Estimation and Sensor Information Fusion, 9th Semester, Intelligent Autonomous Systems
- 2004 Real-Time Workshop, Continuing Engineering Education within Electronics and IT (ELITE)
- 2002 Introduction to IT Infrastructure, 7th Semester Introduction for International Masters, Intelligent Autonomous Systems
- 2001 Introduction to IT Infrastructure, 7th semester Introduction for International Masters, Intelligent Autonomous Systems