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Annual Business and News: Beginning the 30th Year

THIS past year has been another successful one for the *Journal of Guidance, Control, and Dynamics*. The *JGCD* remains number two in the total number of domestic and international subscriptions among the seven AIAA journals, and it continues to receive high impact factor ratings from journal rating services. A record number of papers (398) were submitted for review between October 2005 and September 2006. Seventeen percent more pages were published during that period than in the previous period, in an attempt to decrease the backlog in papers that are ready to publish. That is equivalent to an extra *JGCD* issue. A page increase is planned in calendar year 2007 to further decrease the backlog.

Our Associate Editors (AEs) are doing an outstanding job of conducting reviews. Here are some statistics on the papers for which they made final decisions during the 12-month period from October 2005 to September 2006:

1) The number of papers decided upon was 368.

2) The number of papers accepted was 146 (40%).

3) The number of papers declined was 164 (45%).

4) The number of papers withdrawn, transferred, or other was 58 (15%).

5) The average number of days from submission until an author of a declined paper is notified was 62.

6) The average number of days from submission until the AE asks for a revision to a paper that is expected to be accepted was 87.

7) The average number of days from submission until a paper is accepted after revision was 165.

For those 368 papers, on average, I assigned an AE the same day that I received the paper. On average, the AE assigned the first reviewer in eight days. Overall, 45% of the authors hear sad news in two months (62 days), and 40% get word in three months (87 days) that a revision is requested. Then, the final acceptance of the revised paper averages just over five months (165 days) from submission. I am very proud of the performance of our AEs and the responsiveness of most authors in getting their revisions done quickly! If we can just decrease the time for the printer to print accepted papers, I really would be happy.

In past editorials, I have written about the progress made during the year toward meeting my goals as Editor-in-Chief. These goals are to 1) maintain the quality of the *JGCD*, 2) increase the number of engineering applications-oriented papers, 3) minimize the time from submission to publication, 4) increase the international involvement in the *JGCD*, and 5) listen to and respond to everyone's concerns. I am satisfied that we are continuing to make progress in meeting these goals. The *JGCD* attracts high-quality papers submitted on a worldwide basis. On any given date, typically 140 papers were in the process of being evaluated. However, the number of applications-oriented papers submitted still needs to be increased, and I repeat the call to the community to respond with more relevant papers that can help engineers practice their profession.

Authors should be advised that we are encouraging journal submissions from the AIAA-cosponsored conferences. The AIAA has different copyright arrangements with various conference organizations, and most copyright issues can be resolved for the benefit of authors who are interested in reaching a worldwide audience through peer review and publication in the *JGCD*.

Not all news is good. We in the publications arena have been encountering an increasing number and variety of ethical violations, including plagiarism. The AIAA Publications Committee has developed policies and procedures that specify and clarify the fair and uniform handling of various ethical violations. Penalties range up to a lifetime ban on publishing in AIAA books or journals, and, unfortunately, violators have already been penalized. We have been electronically exchanging lists of our submitted papers with those of journals in the same field. We have found authors who have simultaneously submitted nearly the same paper to different journals. We have severely penalized them by applying AIAA publication bans. More information on this subject is provided to authors during the WriteTrack submission process.

Another issue bothering me relates to "journal-shopping." The sequence of events is that the author submits a paper, it gets reviewed, and then it is declined. Some authors immediately send the paper to another journal, or incorporate the reviewer's comments and, without acknowledging help, then send the paper to a different journal. Authors should be advised that if a paper is resubmitted to the AIAA, it must be resubmitted to the original AIAA journal that made the decision. The WriteTrack system checks that automatically. Authors who previously submitted to any other journal must advise us of the paper's history during the submission process. Based on what the author tells us, we will make a decision on whether to review the paper or not. Authors failing to provide the correct information during the submission process can expect sanctions under our ethical policies and procedures. We are simply not going to tolerate the waste of editors' and reviewers' time.

A closely related ethical issue is the failure of some authors to reference or provide information during submission of any closely related work of theirs that has been published or presented previously and that is incorporated into the current submission. In many cases, it is a legitimate oversight, but in others, it is an attempt to state that everything is original in the paper and everything should be published at full length. This is what we call "self-plagiarism," and in many cases violates the copyright of some other publication. The failure of authors to provide information or reference the other work is an ethical violation and will be treated as such by the Editorial Staff.

Back to the good news. International participation in the *JGCD* has again increased over previous levels. About 55% of new paper submittals were from outside the United States, and the percentage of papers accepted for review has been about the same as for U.S. papers. Only papers with correct English are accepted for review. Our International Advisors, listed on the masthead, have been very helpful in soliciting good-quality papers. The fact that the *JGCD* archive is online has helped our international authors in their research and has also increased our international subscription base.

With this issue, I am announcing several reappointments to our Editorial Staff, with thanks for their continuing service as Associate Editors: Sivasubramanya Balakrishnan, University of Missouri—Rolla; Jesse Leitner, NASA Goddard Space Flight Center; Michael McFarland, Orbital Sciences Corporation; Colin McInnes, University of Strathclyde; Robert Melton, Pennsylvania State University; Vivekanand Mukhopadhyay, NASA Langley Research Center; and Jurek Sasiadek, Carleton University. The complete list, including biographical sketches of all current Associate Editors, is presented in the following pages.

I express my gratitude to all the reviewers who perform the peer reviews that are necessary to maintain the quality of the *JGCD*. The list of reviewers contributing between 1 October 2005 and 30 September 2006 follows the list of Associate Editors. I apologize to any reviewers whose names may have been inadvertently omitted from the list.

Special acknowledgments go to the individuals who served as liaisons between the *JGCD* and an AIAA Technical Committee: Yaakov Oshman, with the Guidance, Navigation & Control Technical Committee; Ronald Proulx, Charles Stark Draper Laboratory, Inc., with the Astrodynamics Technical Committee; John Valasek, Texas A&M University, with the Atmospheric Flight Mechanics Technical Committee; Karl Bilimoria, NASA Ames Research Center, with the Air Transportation Systems Technical Committee; and Dr. Sanjay Garg, NASA Glenn Research Center, with the Intelligent Systems Technical Committee.

Thanks to all the staff at AIAA Headquarters, particularly, Norma Brennan, Amanda Maguire, and Rick Ashley. These dedicated individuals work at the highest standards in producing the *JGCD*. Thanks to Lisa Gorman and Loretta Mitrano, Charles Stark Draper Laboratory, Inc., for making the Editor-in-Chief's office operate smoothly and efficiently all year long, and to Charles Stark Draper Laboratory, Inc. for its support of the *JGCD*.

Finally, I continue to encourage communications between our readers and any member of the Editorial Staff. I also believe that we did a good job last year of covering the span of interests of our readers and in responding quickly to communications. We can always do better and we are willing to listen; please contact me directly at Charles Stark Draper Laboratory, Inc., 555 Technology Square, MS57, Cambridge, MA 02139, or e-mail me at ed@draper.com.

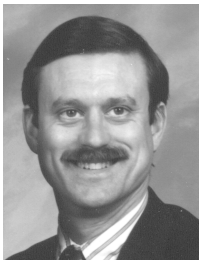
George T. Schmidt
Journal of Guidance, Control, and Dynamics
Editor-in-Chief

Editor-in-Chief

George T. Schmidt received his S.B. and S.M. degrees in Aeronautics and Astronautics from the Massachusetts Institute of Technology (MIT) in 1965 and his Sc.D. in Instrumentation from MIT in 1971. Since 1965 he has worked at the Charles Stark Draper Laboratory, Cambridge, Massachusetts, where he is currently Director, Education. Prior to that he was the Leader of the Guidance and Navigation Division and Director of the Guidance Technology Center. His major technical activities have been in GN&C system design for missiles, aircraft, and manned spacecraft; Kalman filtering applications; and integration techniques for high-resolution synthetic aperture radars, satellite navigation systems, and inertial sensors. Starting in 1968 he served the NATO Research and Technology Organization (formerly AGARD) in many positions, including as a U.S. member of the Guidance and Control Panel. He is a Lecturer in Aeronautics and Astronautics at MIT. He is a Fellow of the AIAA, a Fellow of the Institute of Electrical and Electronics Engineers, and an elected member of the Russian Federation, Academy of Navigation and Motion Control. He has received several awards, including the AIAA International Cooperation Award in 2001 and the NATO Research and Technology Organization von Kármán Medal in 2005. He is serving as chairman of the AIAA Ethics Committee. He is the Editor-in-Chief of *The Draper Technology Digest* and is author or contributing author of more than 80 technical papers and reports, encyclopedia articles, and textbooks. He has been Editor-in-Chief of the AIAA *Journal of Guidance, Control, and Dynamics* since 1996.

Associate Editors

S. N. BALAKRISHNAN is currently a Professor of Aerospace Engineering in the Department of Mechanical and Aerospace Engineering and Engineering Mechanics at the University of Missouri—Rolla (UMR). He received his Ph.D. in aerospace engineering at the University of Texas at Austin. Dr. Balakrishnan's professional roles include Lead Engineer, Lockheed Electronics Company, Houston, Texas, where he worked in the space shuttle program; Scientist and Fellow, Center for Space Research, University of Texas at Austin; and Faculty Research Fellow, Wright Laboratory (Eglin Air Force Base, Florida). He teaches stability and control and advanced control courses at UMR. His research activities focus on neural networks in trajectory optimization, and control, missile guidance, and multiple target-multiple sensor problems and estimation. He has authored/coauthored about 55 journal articles and refereed conference papers in these areas. Dr. Balakrishnan is a Member of the AIAA Guidance, Navigation, and Control Technical Committee, an Associate Fellow of AIAA, and Director, American Automatic Control Council.



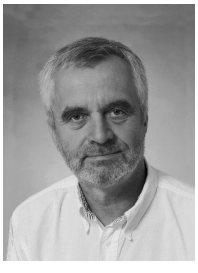
RICHARD COLGREN, Senior Staff Engineer at the Lockheed Martin Aeronautics Company in Palmdale, California, is Lead Engineer for C4ISR and UAV programs for Air Vehicle Sciences and Systems. He earned his B.S. in aeronautics and astronautics at the University of Washington and his M.S. and Ph.D. in electrical engineering systems at the University of Southern California. Previously he was Flight Control Systems Lead for RECEE and Advanced Programs, and before that IPT Lead for Specialist Support on the DarkStar UAV (Tier III-). He was also IPT Lead for the Vehicle Management System on the Uninhabited Combat Air Vehicle, and was Lead Flight Controls Engineer on the U-2S and on the Air Force Multivariable Control Theory project. He has served as Project Engineer/Principal Investigator on independent research and development projects including Technologies for Reliable Autonomous Control, development of the Lockheed flight controls workstation, and the state reduction of structural dynamic models for control systems design. Previous work includes feasibility studies and preliminary/advanced design for flight control system concepts. Work on UAV projects includes Tier IIC, Tier III-, Tier III, X-33, UCAV, micro-UAVs, the Wraith Remotely Piloted Vehicle, and other projects. Dr. Colgren is a past Chair of the Integrated Controls Subcommittee of the Lockheed Corporate Task Force. Dr. Colgren is an aeronautical engineering evaluator for the Accreditation Board for Engineering and Technology, Inc./Aeronautical. He is an Associate Fellow of the AIAA, and is a Member and past Secretary for the National Technical Committee on Guidance, Navigation, and Control.

JOHN L. CRASSIDIS is an Associate Professor of Mechanical and Aerospace Engineering at the University at Buffalo (UB), State University of New York. He received his B.S., M.S., and Ph.D. in Mechanical Engineering from the State University of New York at Buffalo. Prior to joining UB in 2001, he held academic appointments at Catholic University of America from 1996 to 1998 and Texas A&M University from 1998 to 2001. From 1996 to 1998, he was a NASA Postdoctoral Research Fellow at Goddard Space Flight Center, where he worked on a number of spacecraft projects and research ventures involving attitude control systems. He is the principal author of the textbook *Optimal Estimation of Dynamic Systems* (CRC Press, 2004) and has authored or coauthored more than 80 journal and refereed conference papers. He served as the Technical Program Co-Chair of the AIAA Guidance, Navigation, and Control (GN&C) Conference in 2001 and as the General Chair in 2003. He has received many awards for his achievements, including the best paper award for both the 2001 and 2003 AIAA GN&C conferences, the 2006 AIAA Sustained Service Award, and the Society of Automotive Engineers 2006 Ralph R. Teetor Educational Award. His current research interests include nonlinear estimation and control theory, spacecraft attitude determination and control, attitude dynamics and kinematics, and robust vibration suppression. Since 1997 he has been a Member of the AIAA Technical Committee on GN&C where he currently serves as Chair. He is an Associate Fellow of AIAA.

DAVID B. DOMAN is a Senior Aerospace Engineer with the Air Vehicles Directorate of the Air Force Research Laboratory (AFRL) at Wright—Patterson Air Force Base in Dayton, Ohio. He received his B.S. degree in aerospace engineering (magna cum laude) from West Virginia University in 1991, his M.S. in aeronautics and astronautics from Purdue University in 1993, and his Ph.D. in aerospace engineering from Virginia Polytechnic Institute and State University in 1998. From 1993 to 1995 he worked as a Research Aerospace Engineer in the Flying Qualities group at the U.S. Air Force Wright Laboratory, where he focused on control theoretical modeling of human operator dynamics. He is currently the Technical Area Lead for the Space Access and Hypersonic Vehicle Guidance and Control Group in the Control Science Center of Excellence at AFRL, where he is responsible for conducting and directing research in the areas of adaptive guidance and control, on-line trajectory retargeting algorithms, and nonlinear control allocation. He has published more than 90 refereed conference papers, journal articles, and technical reports and currently holds two U.S. patents. He was the corecipient of the 2003 Gen. Benjamin D. Foulois Award as well as the 2000 Dr. Courtland D. Perkins award for his technical contributions at the Air Vehicles Directorate of AFRL. In 2005, he was selected to participate in the Frontiers of Engineering Symposium of the National Academy of Engineering. He is a Senior Member of the AIAA, a Member of the Institute of Electrical and Electronics Engineers, an Associate Editor for the IEEE Control Systems Society's Conference Editorial Board, and a member of the AIAA Technical Committee on Guidance, Navigation, and Control.

FIDELIS O. EKE holds a diploma in mechanical engineering from Universite Lovanium, Kinshasa, Democratic Republic of the Congo, an M.S. in mechanical engineering from Tuskegee University, and a Ph.D. in mechanical engineering from Stanford University. He worked for six and half years in the Guidance and Control Section of the Jet Propulsion Laboratory in Pasadena. Some of the major tasks he performed include design of attitude control algorithms for the Galileo spacecraft; stability studies of rocket motors; study of various aspects of the dynamics, control, and stability of spin-stabilized spacecraft; evaluation of the impact of flexibility on the design of controllers for large flexible space structures; development of new formalisms for the study of the dynamics of multibody systems. He is currently an Associate Professor in the Department of Mechanical and Aeronautical Engineering at the University of California, Davis, where he teaches courses in the dynamics and controls areas. His research interests are mainly in the application of dynamics and controls to aerospace systems, especially attitude dynamics and control, dynamics of variable mass systems, and multibody dynamics.

RUSSELL ENNS is an Associate Technical Fellow at the Boeing Company in Mesa, Arizona. He received his B.A.Sc. from Simon Fraser University and his M.S. and Ph.D. in Electrical Engineering from Arizona State University. He has been developing fire and flight controls systems for McDonnell Douglas Helicopter Company/Boeing since 1993. He currently serves as a technical lead on the modernized flight control system for the Apache Longbow. He has either lead, been a key designer, or acted as a consultant on a number of other flight control programs, especially those focusing on fly-by-wire technology. This includes unconventional systems such as the Canard Rotor Wing and A-160 Hummingbird programs. His other research interests include neural-control systems and flight control reconfiguration, with several refereed publications in these areas. He has been an invitee to the National Science Foundation Workshop on Reinforcement Learning and has had invited papers to the AHS Technical Specialists Meeting and International Joint Conference on Neural Networks. He has served for several years as a reviewer for AIAA JGCD and IEEE TNN. He is a longstanding member of the AIAA, IEEE and AHS.



WODEK GAWRONSKI is a Principal Engineer at the Jet Propulsion Laboratory, California Institute of Technology. He received his M.S. (1968), Ph.D. (1970), and D.Sc. (1975) from the Gdansk University of Technology, Gdansk, Poland. He was a Professor at the Gdansk University of Technology (1970–1983), a Visiting Professor at the University of Hanover, Germany (1983–1986), and Senior NRC Fellow at the NASA Langley Research Center, Hampton, VA (1987–1989). His research interest is in the areas of structural dynamics, structural control, system identification, and antenna and radiotelescope pointing and control. At the Jet Propulsion Laboratory he is responsible for the advanced development of the control systems of NASA Deep Space Network antennas. He was also a consultant on control system design to several radiotelescope projects, including the NRAO 100-meter Green Bank Telescope in West Virginia, and the 50-meter Large Millimeter Wavelength Telescope in Pueblo, Mexico. He is an author of two books: *Balanced Control of Flexible Structures* (Springer 1996), and *Dynamics and Control of Structures* (Springer 1998).

HARI B. HABLANI received his B.S. (mechanical engineering) in 1972 from Government College of Engineering and Technology, Raipur, Chhattisgarh, and his M.S. in 1974 and Ph.D. in 1978 (both in aerospace engineering) from the Indian Institute of Science, Bangalore, India. He passed his M.S. with distinction and Ph.D. with P. S. Narayan Gold Medal. From 1978 to 1980, he was a Postdoctoral Fellow in the Department of Aeronautical and Astronautical Engineering, Purdue University, West LaFayette, Indiana. For the following two years, he was a NASA National Research Council Resident Associate at Johnson Space Center, Houston, Texas. Since 1982, he has been with The Boeing Company (formerly Rockwell International), Flight Sciences and Advanced Design Group, Huntington Beach, California, where he currently is a Technical Fellow. For the past three years, he has been involved with the design of guidance, navigation, and control of spacecraft rendezvous. Earlier, he was responsible for detailed design and simulation of spacecraft and interceptor dynamics, control, determination, guidance, and navigation. Dr. Hablani has received numerous awards for his contributions, including the Leonardo de Vinci (the Spirit of the Renaissance) Engineer of the Year 1991 and patent and innovation awards. He has authored numerous publications, both internal and external. For the last two years, he has been presenting Boeing-wide, a course on guidance, navigation, and control of spacecraft and interceptors. He has been an Associate Fellow of AIAA since 1994.

JESSE LEITNER holds a Ph.D. in aerospace engineering from Georgia Institute of Technology in the area of flight mechanics and control, an M.S. in aerospace engineering from Georgia Institute of Technology, and a B.S. in aerospace engineering from the University of Texas at Austin. He is currently a Guidance, Navigation, and Control (GN&C) Systems Engineer and he serves as NASA Goddard's Lead Engineer for Distributed Space Systems. In this role he is responsible for the end-to-end technology program supporting Goddard's Earth Science and Space Science multiple spacecraft missions. He is also the Lead Analyst for formation flying guidance, navigation, and control work. Dr. Leitner serves as an interface between engineers and scientist principal investigators for distributed spacecraft missions at Goddard and he also acts as an interface in this area to the Department of Defense and other government agencies with interests in distributed space systems. Prior to joining NASA Goddard at the beginning of 2000, he was a Group Leader for Space Flight Dynamics and Control at the Air Force Research Laboratory, Space Vehicles Directorate, in Albuquerque. His research interests are in spacecraft guidance, navigation, and control and formation flying; applications of nonlinear and adaptive control; and dynamics and control of large optical systems. He serves on the AIAA GN&C Technical Committee, he has just finished his term as the AIAA Director on the American Automatic Control Council, and he was the Technical Program Chair for the 2002 AIAA GN&C Conference. He is an Associate Fellow of AIAA.

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PING LU, Professor of Aerospace Engineering at Iowa State University, received his B.S. from the Beijing Institute of Aeronautics and Astronautics, China, in 1982 and his M.S.E. and Ph.D. in aerospace engineering from the University of Michigan in 1984 and 1988, respectively. He worked as a Postdoctoral Fellow from 1988 to 1989 at the University of Michigan. Since 1990 he has been with Iowa State University. His research interests include aerospace guidance, nonlinear control theory and applications, and trajectory optimization. He is an Associate Fellow of AIAA and was a Member of the AIAA Technical Committee on Guidance, Navigation, and Control (1994–2000).

MICHAEL B. MCFARLAND, Senior Systems Engineer with Raytheon Electronic Systems, is involved in a variety of research and development activities related to advanced missile guidance and control algorithms. He received his B.S. in aerospace engineering with high honors from the University of Florida in 1991, and his M.S. and Ph.D. in aerospace engineering from the Georgia Institute of Technology in 1992 and 1997, respectively. From 1991 to 1999, he was a Research Aerospace Engineer with the Air Force Research Laboratory Munitions Directorate at Eglin Air Force Base. Some of his previous research efforts focused on genetic algorithms, hybrid numerical/analytical methods for optimal aeroassisted orbit transfer vehicle guidance, robust nonlinear missile autopilot architectures, missile guidance laws, adaptive nonlinear control using artificial neural networks, and optimal path planning. His current research interests include guidance and control of hypersonic missiles, applications of adaptive and nonlinear control theory, and artificial neural networks. He is a Senior Member of AIAA, Member of the AIAA Missile Systems Technical Committee, Member of the Institute of Electrical and Electronics Engineers, and Life Member of Tau Beta Pi.

COLIN McINNES is Professor of Engineering Science at the Department of Mechanical Engineering, University of Strathclyde. He obtained a B.Sc. (Hons.) in physics and astronomy and a Ph.D. in astrodynamics from the University of Glasgow in 1988 and 1991, respectively. He was then appointed as a lecturer in the Department of Aerospace Engineering in October 1991 and was subsequently Reader (1996) and Professor (1999). He joined the University of Strathclyde in September 2004. His research interests center on highly non-Keplerian orbits for solar sails, solar sail mission analysis and design, autonomous spacecraft control, and space robotics. Recent contributions include studies of high-energy sample return missions using solar sails for the ESA and mission applications of non-Keplerian orbits for NOAA and the Lockheed Martin Corporation. He is a Fellow of the Royal Aeronautical Society, the Institute of Physics, and the Royal Society of Edinburgh and was elected a Fellow of the Royal Academy of Engineering in July 2003.

ROBERT G. MELTON is a Professor of Aerospace Engineering at the Pennsylvania State University. He received his B.S. in physics (cum laude) from Wake Forest University in 1976, and his M.S. in physics (1979) and Ph.D. in engineering physics (1982) from the University of Virginia. His research includes work in celestial mechanics, non-Keplerian astrodynamics, trajectory optimization, optimum station-keeping for space-based interferometry, and satellite attitude dynamics and control. An Associate Fellow of AIAA, he has served on its Astrodynamics Technical Committee and on the *Journal of Guidance, Control, and Dynamic's* Applications Advisory Board. He is a member of Sigma Pi Sigma (Physics Honor Society) and a Fellow of the American Astronautical Society, in which he has served as Chair of the Space Flight Mechanics Technical Committee, and Vice President-Technical; and in which he is currently Vice President-Publications

JAMES MITCHELL is a Technical Fellow with the Boeing Company. He has 30 years of experience in aircraft control system design, with the last 20 years being specifically involved in the design of fly-by-wire flight control systems for fixed- and rotary-wing aircraft. He gained his Bachelors degree in aeronautical engineering in 1974 from the Imperial College of Science and Technology in London, England. His early working experience was with Westland Helicopters, where he was a member of a team developing a family of unmanned rotorcraft, which are now to be seen as objects of interest in the British Helicopter Museum at Weston-super-Mare, England. He continued his career with Canadair in Montreal, Canada, where he was involved with the design of the Canadair Challenger business jet. He joined Boeing in Seattle in 1979 as part of the flight controls team for the Boeing 767. His career at Boeing since then has included the Boeing 767 and Boeing 777 commercial transports, the Boeing—Sikorsky RAH-66 Comanche helcopter, and the Bell—Boeing V-22 and Bell—Boeing (now Bell—Agusta) 609 tilt-rotor aircraft. He is now supporting the design of the flight control system for the Boeing 7E7 Dreamliner. A member of the American Helicopter Society, AIAA, and Society of Automotive Engineers, Jim is also a member of the Steering Committee for the Software System Safety Working Group chaired by Professor Nancy Leveson of MIT, which addresses areas of common interest between diverse industries that use software as a means of controlling safety critical functions

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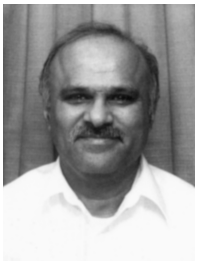
JUREK Z. SASIADEK is a Professor of aerospace engineering in the Department of Mechanical and Aerospace Engineering at Carleton University, Ottawa, Ontario, Canada. He received his M.S. (1972), Ph.D. (1975), and D.Sc. from the Technical University of Wroclaw, Wroclaw, Poland. His research interests focus in two main areas. The first is robotics, especially space robotics and unmanned autonomous vehicles (UAVs). The second area involves guidance, navigation, and control, especially spacecraft and aircraft control and nonlinear control. In 1989--1991 Dr. Sasiadek was with the Canadian Space Agency in Ottawa, and in 1985--1987 he was a Technical Director for Alberta Research Council, Calgary, Alberta. He has authored or coauthored more than 180 journal and refereed conference papers. Professor Sasiadek is a member of the AIAA Guidance, Navigation, and Control Technical Committee. An Associate Fellow of AIAA, he was a Program Chair of the 1994 AIAA Guidance, Navigation, and Control Conference in Scottsdale, Arizona. In August 2001, he was General Chair of the 2001 AIAA Guidance, Navigation, and Control Conference in Montreal, Quebec. Currently, he is Chair of an IFAC Robotics Technical Committee. Also, he is a Chair of Joint Robotics and Control Systems Societies Chapter in Ottawa.



M. BALA SUBRAHMANYAM was born in the state of Andhra Pradesh, India, in 1949. He received his B.S. (1970) in electrical engineering from the Regional Engineering College, Warangal, India, and his M.S. (1972) and Ph.D. (1975) in electrical engineering from the University of Iowa, Iowa City, Iowa. Dr. Subrahmanyam has held faculty positions with Texas A&M University, Kingsville, Texas, and the University of Missouri-Columbia, Columbia, Missouri. He was also with the Naval Air Warfare Center, Patuxent River, Maryland, working in the area of research and development of flight control systems of advanced naval aircraft. Currently he is with the Lockheed Martin Advanced Technology Center in Palo Alto, CA, working on the Advanced EHF and Airborne Laser programs. He is also an Adjunct Professor with the Florida Institute of Technology. Dr. Subrahmanyam's research interests include the areas of guidance and control problems of aircraft and missiles, H 1 control, and optimal control. He has published over 30 journal articles in these areas. In addition, he has written the books *Optimal Control with a Worst Case Performance Criterion and Applications* (Springer-Verlag, 1990) and *Finite Horizon H 1 and Related Control Problems* (Birkhauser, 1995). He is an Associate Fellow of the AIAA.

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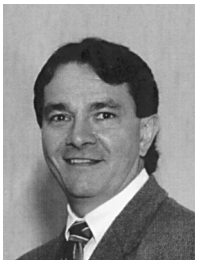

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