

The Book Series Proposal on

Fully Actuated System Approach for Control and AI¹

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¹ Possible alternatives are 1) Fully Actuated System Approach for Control; and 2) Fully Actuated System Control Theory and Applications.

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I. Editorial Board

1.1. Editors-in-Chief

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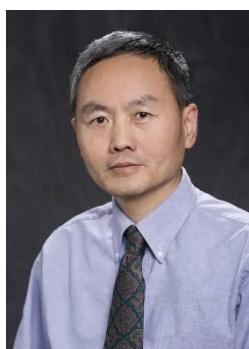
Guang-Ren Duan received the Ph.D. degree in control systems sciences from Harbin Institute of Technology, Harbin, China, in 1989. After a Two-Year Postdoctoral Experience with the Harbin Institute of Technology, he became a Professor of Control Systems Theory in 1991. He is the Founder and the Director of the Center for Control Theory and Guidance Technology, Harbin Institute of Technology, and in 2021, he also established the Center for Control Science and

Technology with the Southern University of Science and Technology, Shenzhen, China. He visited the University of Hull, Hull, U.K., the University of Sheffield, Sheffield, U.K., and also the Queen's University of Belfast, Belfast, U.K., from December 1996 to October 2002. He is the author and co-author of 5 books and over 500 SCI indexed publications. His main research interests include FAS approach for nonlinear control, parametric control systems design, descriptor systems, spacecraft control, and magnetic bearing control. Prof. Duan has served as a member for the Science and Technology Committee of the Chinese Ministry of Education, a Vice President for the Control Theory and Applications Committee and Chinese Association of Automation. He is currently a Fellow of IEEE, IET and CAA.

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Guoxiang Gu received the B.S. degree in electrical engineering from Chinese Textile University, Shanghai, China, in 1982, and the M.S. and Ph.D. degrees in electrical engineering from the University of Minnesota, Minneapolis, in 1985 and 1988, respectively. From 1988 to 1990, he was with the Department of Electrical Engineering, Wright State University, Dayton, OH, as a visiting assistant professor. He joined Louisiana State University (LSU), Baton Rouge, in 1990, where he is presently the F. Hugh Coughlin/CLECO Distinguished Professor of

Electrical Engineering. He has held visiting positions at Wright-Patterson Air Force Base and at Hong Kong University of Science and Technology. He served as an

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II. Fully Actuated System Theory

2.1. The Birth

Fully-actuated system (FAS) approach is a new approach recently discovered for control systems analysis and design.

State-space models, which have dominated the modern control theory for centuries, are in fact not the best ones to handle control problems. As a matter of fact, state-space models were originally proposed to deal with problems directly tied to the states: linear state-space models were firstly proposed by Euler in early 1750 for solving high-order linear differential equations (giving the state responses), and nonlinear ones were used by Lyapunov in 1892 to analyze the limit behavior of the states. Exceptionally, state-space models have been successfully used in the control of linear systems because linear systems are easy to handle. While for control of nonlinear systems, insurmountable difficulties are encountered. As Alberto Isidori put it: “ from the mid 1990s, the study of problems of feedback design for MIMO nonlinear systems came to a (almost complete) stall” .

In certain practical applications, there exists a type of physical systems which are

referred to as FASs. They are often modeled as Lagrangian systems (a type of differential equations of second order), and are widely encountered in the mechanical, electrical and aerospace fields. They are of the type from which the control vectors can be explicitly solved out, and are therefore inherently more straightforward for controller designs.

However, the set of physical FASs is small. How about the control of the large set of non-FASs, which are composed of the so many under-actuated systems (UASs) and the so many systems which can not be classified into FASs or UASs? Very recently, the physical FASs are generalized mathematically, and it is shown that, instead of a state-space model, a generalized mathematical FAS model can be obtained for a “controllable” complicated dynamical system. Thus a new methodology termed as FAS approach has been proposed. Instead of converting the model of a dynamical system (including UASs) into a state-space one, the FAS approach converts it into a so-called mathematical FAS model. Then, similar to a physical FAS, the converted mathematical FAS can then be easily controlled and a linear closed-loop system can often be fully or partially obtained with an arbitrarily assignable eigenstructure.

The FAS approach was originally proposed in a set of ten seminal papers published in the *International Journal of Systems Science* (IJSS), under the title of “High-order fully actuated system approaches”. The following webpage has been especially set up on the website of IJSS to give an introduction of this set of papers:

<https://www.tandfonline.com/journals/tsys20/collections/HOFA>

Note: In latest researches, the abbreviation “FAS” is used instead of “HOFA” systems which stands for “high-order fully actuated” systems.

2.2. Developments

Ever since its emergence in 2020-2021, the FAS approach, owing to its distinct advantages, has attracted widespread and rapid-increasing attention. By now, the following aspects of developments have been achieved:

1) Publications

The pioneering work on FAS approaches has led over 100 research teams from more than 60 universities worldwide, including those from China, the United States, Canada, the United Kingdom, Germany, Italy, Australia, and South Korea, to publish over 450 papers in this new direction, addressing a range of unsolved and poorly solved problems by state-space methods, as well as numerous challenges in practical applications, including spacecraft control, robot control, servo system control, renewable energy power system control, etc.

2) FASTA Technical Committee

- In 2022, the “Fully Actuated System Theory and Applications” Technical Committee was established, marking it as the only committee under the Chinese Association of Automation named after a completely new field.

- The application of a technical committee of the same name has also been submitted to the Asian Control Association, and is anticipated to be approved by the end of 2024.

3) FASTA Conference

The Annual International Conference on Fully Actuated System Theory and Applications (FASTA) has been held three times:

- FASTA 2022 was held in Harbin, China, with more than 150 participants;
- FASTA 2023 was held in Qintgdiao, China, with more than 430 participants;
- FASTA 2024 was held in Shenzhen, China, with more than 610 participants.

FASTA 2023 and FASTA 2024 have received participants and submissions from different countries and regions, including the US, Canada, Australia, Turkey, Belgium, Japan, Singapore, UK, France, and the Netherlands, etc. The conference proceedings of both FASTA 2023 and FASTA 2024 have been included in the IEEE Xplore database and also have been indexed by EI.

FASTA 2025 and FASTA 2026 will be held in Nanjing and Qinhuangdao, respectively.

4) Special Issues

- *International Journal of Systems Science* has formally become the affiliated journal of the annual FASTA conference. It is agreed that, since 2023, every year there will a special issue on FAS approach published in this journal, with papers mainly selected from that year's FASTA conference. The special issue in 2023 is entitled Fully Actuated System Theory and Applications: New Developments in 2023, with papers selected from FASTA 2023, has already appeared (<https://www.callforpapers.co.uk/fasta>). The 2024 issue is now under preparation (<https://www.tandfonline.com/journals/tsys20>).
- Besides the special issues in *International Journal of Systems Science*, special issues on the FAS approach have also been published in *Journal of Aeronautics and System Science and Complexity*.
- Additionally, a special issue is scheduled to be published next year in *Control Engineering Practice* (see the following URL), an official journal of the International Federation of Automatic Control.
<https://www.sciencedirect.com/special-issue/316681/development-and-applications-of-high-order-fully-actuated-system-theory>

5) Keynote Presentations

Ever since the emergence of the FAS approach in 2021, the founder of the FAS approach has been invited to give 28 keynote presentations on the theoretical aspects of fully actuated systems at quite a few international academic conferences. These include CCDC 2022, CCC 2023, CAC 2024, and the following international ones.

IEEE ICRA 2021	Full actuation—from physical to mathematical, 2021 IEEE International Conference on Robotics and Automation, Xi'an, China, June 2-3, 2021.
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IFAC TDS 2021	Time-delay systems: A fully actuated system approach, The 17th IFAC Workshop on Time-delay Systems, Guangzhou, China, Sept. 29-Oct.1, 2021.
IEEE DDCIS 2023	Fully Actuated System Approach and Data Driven Control, 2023 IEEE 12th Data Driven Control and Learning Systems Conference, Xiangtan, China, May 12-14, 2023.
IEEE CYBER 2023	Fully Actuated System Approach for Control, International Conference on CYBER technology in Automation, Control, and Intelligent Systems, Qinhuangdao, China, July 11-14, 2023.
IEEE IECON 2023	Fully Actuated System Approach for Control---An introduction, IECON 2023: Annual Conference of the IEEE Industrial Electronics Society, Singapore, Oct. 16-19, 2023.

III. Aims and Scope

3.1. Aims

The books published in this series focus on the theoretical foundations of the fully actuated system approach, advanced technologies based on the fully actuated system approach, and practical applications. Ideally, the content will highlight the opportunities that the fully actuated system approach brings to control systems through rigorous mathematical treatment and practical application results, as well as its parallel relationship with state-space methods. The target audience includes undergraduate and graduate students, as well as researchers in automation control, robotics, fault diagnosis, and related fields, who can conveniently track advancements in the fundamentals, theories, and applications of the fully actuated system approach through this series. The specific aims are outlined as follows:

A. To Provide Comprehensive Theoretical Insights

The series aims to deliver a thorough mathematical foundation of the fully actuated system approach, ensuring that readers grasp the underlying principles and theories that govern its application in control systems.

B. To Explore Advanced Technological Applications

The series seeks to present cutting-edge technologies and methodologies derived from the fully actuated system approach, showcasing innovative solutions and their implications across various fields such as automation and robotics.

C. To Facilitate Practical Implementation and Case Studies

The series intends to include practical application results and case studies that illustrate the effectiveness of the fully actuated system approach, enabling readers to understand real-world applications and foster the integration of theory with practice.

3.2. Scope

FAS approaches have been successfully adapted to a wide range of domains, demonstrating their versatility and effectiveness. These domains include discrete-time systems, time-delay systems, stochastic systems, and impulsive systems, each presenting unique challenges that FAS methodologies can address.

In addition to their theoretical extensions, FAS approaches have been applied in various practical applications, showcasing their real-world relevance. Notable implementations include spacecraft control, where precision and reliability are paramount; unmanned aerial vehicle (UAV) control, which requires adaptive responses to dynamic environments; robotic systems that enhance automation and efficiency; servo systems that ensure accurate motion control; and renewable energy power systems, where effective multi-objective control and optimization are essential.

The specific topics related to FAS approaches, including recent advancements and their implications, are illustrated in Figure 1. This figure provides a comprehensive overview of the current landscape and potential future directions for research and application in this field.

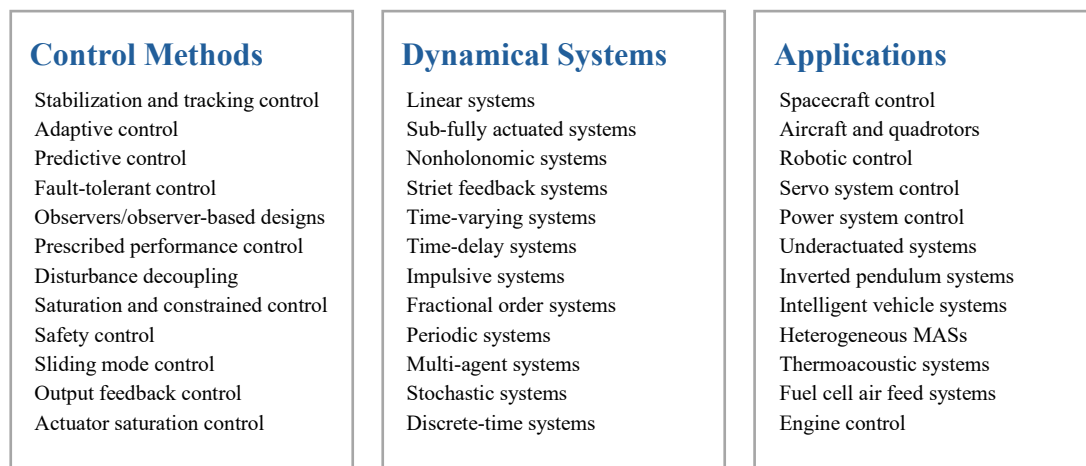


Figure 1. Research areas covered by the FAS approach

IV. Responsibilities of Editors and Advisory Members

4.1. Responsibilities of Editors

- 1) Series Conceptualization and Development
 - Conceptualize the Series: Define the overarching theme and objectives of the book series, ensuring alignment with current trends and research needs in the field.
 - Establish Editorial Guidelines: Develop clear guidelines for authors regarding manuscript submission, formatting, style, and content expectations.
- 2) Proposal Management

- Acquisition of new proposals: series editors are expected to actively acquire proposals at conferences and workshops and from their network.
 - Review of proposals: when a proposal comes in, it is read by series editors. Based on their initial review, the series editor and publisher decide on pre-contracting the book. If necessary, the series editors will recommend reviewers for the full manuscript.
- 3) Editorial Oversight and Quality Assurance
- Editorial Oversight: Provide guidance to authors on content structure, clarity, and coherence to enhance the quality of the manuscript.
 - Address Revisions: Work with authors to address feedback from peer reviewers and ensure necessary revisions are completed satisfactorily.
 - Ensure Consistency: Maintain a consistent voice, style, and quality across all books in the series.
 - Final Approval: Conduct a final review of manuscripts before submission to the publisher, ensuring that all editorial standards are met.
- 4) Publisher Liaison and Promotion
- Liaise with Publishers: Work closely with the publisher (e.g., Springer) to ensure that all administrative and production processes are followed.
 - Facilitate Marketing and Promotion: Collaborate with the publisher's marketing team to promote the series and its individual titles effectively.
 - Promotion of the series: the series editors are encouraged to take flyers to conferences and workshops, help promoting the series and published titles through their network.
- 5) Community Engagement and Networking
- Organize Meetings: Organize editorial and advisory members to assess the progress of the series, summarize the previous year's work, give a publication plan for the next year, etc.
 - Network with Authors and Researchers: Foster relationships with potential authors, researchers, and industry professionals to identify new topics and contributors for the series.
 - Organize Events: Plan and participate in academic conferences, workshops, and seminars to promote the series and engage with the target audience.

4.2. Responsibilities of Advisory Members

- 1) Strategic Guidance and Quality Assurance
- Provide Expertise: Offer insights and recommendations based on their expertise in the relevant fields, helping to shape the direction and focus of the book series.
 - Identify Trends: Monitor and identify emerging trends and topics in control theory and related disciplines to ensure the series remains relevant and forward-looking.
 - Maintain Standards: Help uphold the academic integrity and quality of the series by providing oversight and feedback on editorial practices and

- published content.
 - Peer Review Support: Assist in identifying qualified peer reviewers for submitted manuscripts, ensuring a robust review process.
- 2) Networking, Collaboration, and Advocacy
 - Facilitate Connections: Leverage their professional networks to connect editors with potential authors, reviewers, and industry partners.
 - Promote Collaboration: Encourage interdisciplinary collaboration among authors and researchers, fostering a diverse range of perspectives within the series.
 - Advocate for the Series: Actively promote the book series within their professional circles, encouraging colleagues and students to engage with the publications.
 - Participate in Events: Attend and represent the series at conferences, workshops, and other academic events, helping to raise its profile and attract new contributors.
 - 3) Community Engagement and Impact Assessment
 - Gather Insights: Collect feedback from the academic community and industry stakeholders regarding the series and its publications.
 - Assess Impact: Help evaluate the impact of the series by analyzing readership, citations, and overall influence in the field.
 - 4) Support, Mentorship, and Professional Development
 - Support Authors: Provide guidance and mentorship to new authors and researchers who contribute to the series, helping them navigate the publishing process.
 - Encourage Professional Development: Assist in fostering the professional growth of emerging scholars by sharing knowledge and resources.
 - 5) Participation in Meetings and Strategic Planning
 - Attend Meetings: Participate in regular advisory board meetings to discuss ongoing projects, review of annual progress, propose new ideas, and address challenges within the series.

V. Publishing Plan and Potential Titles/Authors

5.1. Publishing Plan

The book series aims to establish a robust and impactful presence in the academic and industrial communities. To achieve this, the series editors will implement a comprehensive publishing plan with the following key objectives:

1) Annual Publication Target

The series editors will strive to publish a minimum of 5 titles each year for 5 consecutive years. This consistent output will help build a solid foundation for the series, ensuring it becomes a recognized and authoritative resource in the field.

2) Diverse Topics and Themes

Each title will explore different aspects of fully actuated system approaches, including but not limited to control theory, applications in spacecraft control, unmanned aerial vehicle (UAV) control, robots, servo systems, and renewable energy power systems.

5.2. Titles to Appear in 2025

1	Title	Fully Actuated System Approach for Nonlinear Control
	Author	Guang-Ren Duan
	Profiles	<i>Guang-Ren Duan</i>: Professor at Harbin Institute of Technology, Academician of the Chinese Academy of Sciences, Fellow of IEEE, IET and CAA The author has published 63 papers on the subject directly related to this title, with 30 as the independent author, a series of 10 papers in <i>International Journal of Systems Science</i> (all as the independent author), a series (in Chinese) of 3 papers in <i>Acta Automatica Sinica</i> (all as the independent author), and 16 in top IEEE Transactions journals.
2	Title	Predictive Cooperative Control for High-Order Fully Actuated Multiagent Systems
	Authors	Da-Wei Zhang, Guo-Ping Liu
	Profiles	<i>Da-Wei Zhang</i>: Postdoc Fellow at Southern University of Science and Technology <i>Guo-Ping Liu</i>: Professor at Southern University of Science and Technology, Member of the Academy of Europe, Fellow of IEEE, IET and CAA The authors have published 18 SCI papers on the subject directly related to this title, with 4 papers in <i>IEEE/CAA Journal of Automatica Sinica</i>, 3 papers in <i>IEEE Transactions on Cybernetics</i>, 2 papers in <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i>, 2 papers in <i>IEEE/ASME Transactions on Mechatronics</i>, 1 paper in <i>IEEE Transactions on Industrial Informatics</i>, and 6 papers in some classical journals on control theory including <i>ISA Transactions</i>, <i>Journal of the Franklin Institute</i>, <i>Science China Information Sciences</i>, <i>International Journal of Systems Science</i>, <i>Journal of Systems Science and Complexity</i>.
3	Title	Fault-Tolerant Control for High-Order Fully Actuated Systems

	Authors	Dong-Hua Zhou, Miao Cai
	Profiles	<i>Dong-Hua Zhou</i>: Professor at Tsinghua University, Fellow of IEEE, IET and CAA, Vice Chairperson of Chinese Association of Automation <i>Miao Cai</i>: PhD graduate from Tsinghua University The authors have published 18 papers on the subject directly related to this title, with 1 in <i>Automatica</i>, 3 in <i>IEEE Transactions on Cybernetics</i>, 2 in <i>IEEE Transactions on Systems, Man, and Cybernetics: Systems</i>, 1 in <i>Neurocomputing</i>, 1 in <i>Journal of the Franklin Institute</i>, 1 in <i>International Journal of Systems Science</i>, and 9 in International Conferences.
4	Title	Adaptive Constrained Control for High-Order Fully Actuated Nonlinear Systems
	Authors	Chang-Chun Hua, Liu-Liu Zhang, Peng-Ju Ning
	Profiles	<i>Chang-Chun Hua</i>: Professor at Yanshan University, Fellow of IEEE, IET and CAA, Dean of the School of Electrical Engineering <i>Liu-Liu Zhang</i>: Associate Professor at Yanshan University The authors have published 15 papers on the subject directly related to this title, with 1 in <i>IEEE Transactions on Circuits and Systems II-Express Briefs</i>, 1 in <i>Nonlinear Dynamics</i>, 2 in <i>Journal of the Franklin Institute</i>, 2 in <i>Journal of Systems Science & Complexity</i>, 1 in <i>International Journal of Robust and Nonlinear Control</i> and 8 in International Conferences.
5	Title	Cooperative Safety Control of Multiagent Systems - A Fully Actuated System Approach
	Authors	Ke Zhang, Bin Jiang, Yong-Hao Ma, Yu-Hang Xu, Yuan Lu
	Profiles	<i>Ke Zhang</i>: Professor at Nanjing University of Aeronautics and Astronautics, IEEE Senior Member <i>Bin Jiang</i>: Professor at Nanjing University of Aeronautics and Astronautics, IEEE Fellow The authors have published 7 papers on the subject directly related to this title, with 1 in <i>Automatica</i>, 1 in <i>IEEE Transactions on Aerospace and Electronic Systems</i>, 1 in <i>IEEE Transactions on Cybernetics</i>, 1 in <i>Aerospace Science and Technology</i>, and 1 in <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i>, etc. Moreover, 4 additional papers are currently submitted and under review.

6	Title	Modeling and Control of Renewable Power Systems - A Fully Actuated System Approach
	Authors	Yi Yu, Guo-Ping Liu
	Profiles	<i>Yi Yu</i>: Postdoc Fellow at The Hong Kong Polytechnic University, IEEE Member <i>Guo-Ping Liu</i>: Professor at Southern University of Science and Technology, Member of the Academy of Europe, Fellow of IEEE, IET and CAA The authors have published 10 papers on the subject directly related to this title, with 1 in <i>Nature Communications</i>, 3 in <i>IEEE Transactions on Smart Grid</i>, 2 in <i>IEEE/CAA Journal of Automatica Sinica</i>, 2 in <i>IEEE Transactions Industrial Electronics</i>, 1 in <i>IEEE Transactions Power Electronics</i>, and 1 in <i>IEEE Transactions Circuits and Systems II: Express Briefs</i>. Moreover, 3 additional papers are currently submitted and under review.

VI. Target Audience

Please outline the markets for your book series. You should include academic and industrial areas and please indicate the level the Series is aimed at (e.g. Undergraduate, postgraduates, researchers etc.), the academic discipline involved, the titles of courses etc.

6.1. Market

Universities (Libraries): Universities, libraries and academic departments will benefit from the series as a resource for teaching and research.

Research Centers: Institutions engaged in cutting-edge research will find the series relevant for advancing knowledge in control theory and applications.

R&D Departments of Companies: Industry professionals will be equipped with the latest research findings and methodologies, enhancing their work in developing and implementing advanced control systems.

6.2. Level

Professors: Faculty members teaching and researching in control theory, spacecraft control, unmanned aerial vehicle (UAV) control, robots, servo systems, and renewable energy power systems, etc.

Researchers: Academics conducting research in control systems, artificial intelligence, industrial manufacturing, and automation technologies.

Postgraduate Students: Master's and PhD candidates specializing in control theory, spacecraft control, unmanned aerial vehicle (UAV) control, robots, servo systems, and renewable energy power systems, etc.

Undergraduate Student: Undergraduate students in automation, aerospace, electrical engineering and computer science.

Industry Professionals: Engineers and researchers working in R&D departments, focusing on the application of control theory in practical settings.

VII. Competition

There are currently no direct competitors in this domain. Fully actuated system approach was proposed in 2020 and 2021 as a general framework for control system analysis and design based on a newly discovered general type of fully actuated models for dynamical systems. Due to its great advantages and power in dealing with complicated nonlinear time-varying and time-delay systems with possibly nonholonomic features, it has attracted much attention in the control community immediately since its birth. The fully actuated system approach is a universal control method that parallels the state-space method. The proposed series is dedicated to exploring the foundations, methodologies, and practical applications of the fully actuated system approach. Consequently, there are currently no direct competitors in this domain.

VIII. Procedures for Publications

Below are the detailed step-by-step publishing procedures:

Stage 1: Proposal Preparation

- 1) Create a Book Proposal: Include an overview of the book, its significance within the series, a chapter outline, and a market analysis;
- 2) Outline the Series: Provide details on how this book fits into the series, including other planned titles;
- 3) Submit the Book Proposal: Proposal for each individual title should be submitted to the series editors or Springer in-house editor;
- 4) Reviewer Assignment: The series editors will invite/assign at least 3 expert reviewers to review the book proposal;
- 5) Review Comments: The review comments should cover both scientific level and language quality;
- 6) Approval Process: If the feedback to the proposal is positive, the proposal will be submitted to Springer for approval. The sample chapters (if available) and the review comments should be attached to the proposal. Springer will organize its internal evaluation for the book proposal;

Stage 2: Manuscript Preparation

- 7) Contract Signing: If the proposal approved by Springer, the contract between the authors and Springer will be signed;
- 8) Manuscript Submission: When the manuscript is ready, it will be sent to the series editors for their approval;
- 9) Revisions: If further revision or copy-editing is needed, the series editors will ask the authors to do so in a timely manner;
- 10) Final Submission: The approved manuscript will be sent to Springer for further copy-editing and production;

Stage 3: Manuscript Proof

- 11) Final Proof Review: The final proof of the book will be sent to the authors as well as Springer for final quality check;
- 12) Authors' Responsibilities: Authors should carefully review the final proof for any remaining errors or typos, ensuring that all revisions have been accurately implemented. This includes checking the overall layout, formatting, and graphical elements;
- 13) Feedback Submission: Authors should compile their feedback and corrections in a clear, organized manner. It's important to specify page numbers and line references to facilitate efficient updates. Any changes should be communicated promptly, as this stage is often time-sensitive;

Stage 4: Quality Assurance

- 14) Springer's Quality Assurance: Following the authors' review, Springer will conduct final quality assurance checks;
- 15) Verification of Corrections: Ensure that all feedback from the authors has been addressed and that no new errors have been introduced during the editing process;
- 16) Consistency Checks: Confirm consistency in formatting, style, and citation throughout the manuscript, adhering to the series' guidelines;
- 17) Final Content Review: Conduct a last review of the content to ensure it meets the scientific standards and quality expected for publication;

Stage 5: Approval for Printing

- 18) Approval Process: Once all corrections have been made, the manuscript will be cleared for printing;
- 19) Author Confirmation: Authors will receive a confirmation request indicating that the manuscript is ready for production. This final confirmation should be returned promptly to avoid delays.

IX. Comments or Suggestions for Promotion Activities

9.1. Conferences/Workshops etc.

A. Annual Conference on FASTA

The FASTA (Fully Actuated System Theory and Applications) is an international

series of academic annual meetings organized and prepared by the Professional Committee on Fully Actuated System Theory and Applications under the Chinese Association of Automation (CAA). The conference aims to provide a timely platform for experts, scholars, graduate students, and engineering designers in the field of control both domestically and internationally to exchange research findings related to FAS theory.

This conference has been successfully held three times. FASTA2022 was held in Harbin with over 150 participants. FASTA2023 was held in Qingdao, China, with more than 430 participants and FASTA2024 was held in Shenzhen, China, with an attendance exceeding 610 participants. The upcoming FASTA2025 and FASTA2026 conferences will be held in Nanjing and Qinhuangdao, respectively.

B. Other Conferences

- 1) ACA (Asian Control Association)
- 2) CCC (Chinese Control Conference)
- 3) CAC (China Automation Congress)
- 4) CCDC (Chinese Control and Decision Conference)
- 5) CPCC (Chinese Process Control Conference)

9.2. Professional Societies

A. Technical Committee on FASTA, CAA

The Technical Committee on TCFASTA (Fully Actuated System Theory and Applications) of the Chinese Association of Automation received official approval for its establishment in November 2023, with Southern University of Science and Technology as its supporting institution. The committee is chaired by Prof. Guang-Ren Duan. Its purpose is to promote academic exchange, technological development, and talent cultivation in the field of fully actuated systems, as well as to advance the application and development of fully actuated systems in areas such as national defense, industry, and agriculture.

Through the coordinated efforts of the Technical Committee, the series will organize an annual conference meeting to facilitate collaborative discussions, share cutting-edge research, and provide networking opportunities for experts and enthusiasts in the field. To further advance FAS theory and expand its applications, the Technical Committee will organize special issues in renowned journals. These issues will focus on emerging topics within FAS, encouraging researchers to contribute their findings and insights. By highlighting innovative research, we aim to foster a deeper understanding of the FAS approach and its potential impact across various sectors.

B. Technical Committee on FASTA, ACA

We have submitted a proposal to establish a FASTA Technical Committee to the Asian Control Association (ACA), and we anticipate receiving approval by the end of this year. Once approved, we will embark on a series of academic activities designed

to foster collaboration and innovation within the FAS community. For example, we will host annual conferences and specialized workshops to bring together researchers, practitioners, and industry experts. These events will serve as platforms for presenting cutting-edge research, sharing best practices, and discussing emerging trends in FAS approaches. To reach a broader audience, we will conduct regular webinars and online seminars that cover a variety of topics related to FAS approaches. These sessions will feature expert speakers and provide opportunities for interactive discussions.

Through these activities, the FASTA Technical Committee will be committed to advancing the field of FAS approaches, promoting academic exchange, technological development, and talent cultivation throughout Asia and beyond. We believe that these efforts will significantly contribute to the growth and application of the FAS theory in diverse industries, ultimately enhancing efficiency and innovation on a global scale.

C. Other Professional Societies

- 1) CAA (Chinese Association of Automation)
- 2) TCCT (Technical Committee on Control Theory)
- 3) IEEE Control Systems Society (IEEE CSS)
- 4) IEEE Systems, Man, and Cybernetics Society (IEEE SMCS)
- 5) IEEE Industrial Electronics Society (IEEE IES)

9.3. Persons to Help Promoting and Selling

Names and Addresses of persons you know of willing to help promoting and selling the books (e.g. through conferences, lectures or reviewing your books).

The following are the names and addresses of individuals who are willing to assist in promoting and selling the books:

- Professor Steven X. Ding at University of Duisburg-Essen, Germany
- Professor Yang Shi at University of Victoria, Canada
- Professor Peter X. Liu at Carleton University, Canada
- Professor N Arun Alagappan and Mir Feroskhan at Nanyang Technological University, Singapore
- Professor Josep M. Guerrero at Aalborg University, Denmark
- Professor Hector Garcia de Marina at University of Granada, Spain
- Professor Silvio Simani at University of Ferrara, Italy
- Professor Konstantinos Tsakalis and Y. Chen at Arizona State University, USA
- Professor Xiaoping Liu at Lakehead University, Canada
- Professor Fatih Adiguzel and Yaprak Yalcin at Istanbul University, Türkiye
- Professor Quanmin Zhu and Ruobing Li at University of the West of England, UK
- Professor Kuo Li at University of Duisburg-Essen, Germany
- Professor Zhiyong Sun at Eindhoven University of Technology, Netherlands
- Professor Chengcui Zhang at University of Alabama at Birmingham, USA
- Professors Ming Liu, Jianbin Qiu, Bin Zhou, Jianxing Liu, Xuemei Zheng,

- Mingzhe Hou, Zhaoyan Li, and Zhan Li at Harbin Institute of Technology, China
- Professors Derong Liu, and Xiang Xu at Southern University of Science and Technology, China
 - Professors Ruiyun Qi, and Yunhua Wu at Nanjing University of Aeronautics and Astronautics, China
 - Professor Jitao Sun at Tongji University, China
 - Professors Huaguang Zhang, Dazhi Wang, Tengfei Liu, and Dan Ma at Northeastern University, China
 - Researcher Feng Zhang at China Academy of Launch Vehicle Technology, China
 - Professor Guangbin Cai at Rocket Force University of Engineering, China
 - Professor Liqun Chen at Shanghai University, China
 - Professor Caisheng Wei at Central South University, China
 - Professor Bin Li at Sichuan University, China
 - Professors Aiguo Wu, Hongwei Zhang, and Ying Zhang at Harbin Institute of Technology (Shenzhen), China
 - Professor Hong Qiao at Institute of Automation, Chinese Academy of Sciences, China
 - Professors Qinglei Hu and Yang Liu at Beihang University, China
 - Professors Jun-e Feng and Dawei Zhang at Shandong University, China
 - Professor Junfang Fan at Beijing Information Science and Technology University, China
 - Professors Wanquan Liu and Bo Zhu at Sun Yat-sen University, China
 - Professors Zhongcai Zhang, Yuqiang Wu at Qufu Normal University, China
 - Professor Xiangpeng Xie at Nanjing University of Posts and Telecommunications, China
 - Professor Huanshui Zhang at Shandong University of Science and Technology, China
 - Professors Liang He and Bing Xiao at Northwestern Polytechnical University, China
 - Professor Lin Yang at Shanghai Jiao Tong University, China
 - Professor Chunjun Chen at Xi'an Jiaotong University, China
 - Professor Qian Wang at Hangzhou Dianzi University, China
 - Professor Ling Huang at Harbin University of Science and Technology, China
 - Professor Lingling Lv at North China University of Water Resources and Electric Power, China
 - Professor Fang Fang at North China Electric Power University, China
 - Professor Liu Zhang at Jilin University, China
 - Professor Li Sheng at China University of Petroleum (East China), China
 - Professors Guangming Zhuang and Wei Sun at Liaocheng University, China
 - Researcher Mingrui Hao at China Aerospace Science & Industry Corporation, China
 - Professor Dongyuan Qiu at South China University of Technology, China
 - Professor Dake Gu at Northeast Electric Power University, China
 - Professor Fengqin Lin at University of Science and Technology Beijing, China

- Professor Wei Wang at Beijing Institute of Technology, China
- Researchers Fei Han and Saifei Ye at Shanghai Institute of Spaceflight Control Technology, China
- Professor Guoliang Zhao at Inner Mongolia University, China
- Professor Xiaohui Yan at Hefei University, China