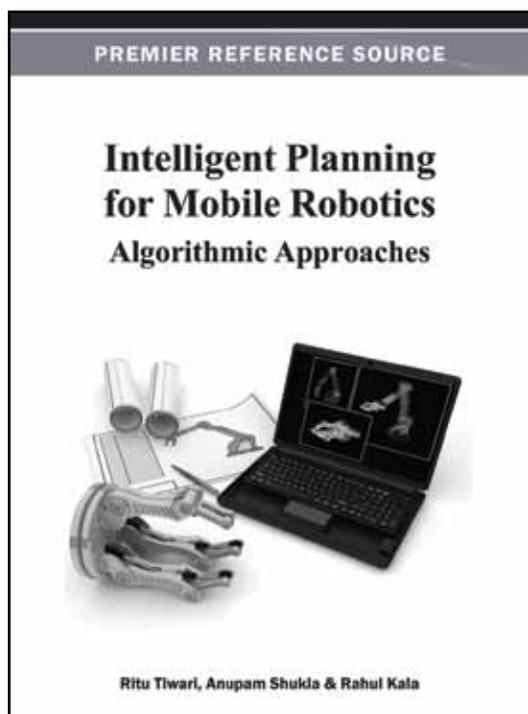


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Intelligent Planning for Mobile Robotics: Algorithmic Approaches



Ritu Tiwari (ABV – Indian Institute of Information, India),
Anupam Shukla (ABV – Indian Institute of Information, India) and
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Robotics is an ever-expanding field and intelligent planning continues to play a major role. Given that the intention of mobile robots is to carry out tasks independent from human aid, robot intelligence is needed to make and plan out decisions based on various sensors. Planning is the fundamental activity that implements this intelligence into the mobile robots to complete such tasks. Understanding problems, challenges, and solutions to path planning and how it fits in is important to the realm of robotics.

Intelligent Planning for Mobile Robotics: Algorithmic Approaches presents content coverage on the basics of artificial intelligence, search problems, and soft computing approaches. This collection of research provides insight on both robotics and basic algorithms and could serve as a reference book for courses related to robotics, special topics in AI, planning, applied soft computing, applied AI, and applied evolutionary computing. It is an ideal choice for research students, scholars, and professors alike.

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- Autonomous Robotics
- Data Collection
- Localization
- Map Building
- Mobile Robotics
- Motion Planning
- Robotic Manipulation and Control
- Sensor Fusion
- Understanding the Environment
- Unmanned Vehicles

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Ritu Tiwari is an Assistant Professor in the Information and Communication Technology Department of Indian Institute of Information Technology and Management, Gwalior, India. She has 09 years of teaching experience. Her field of research includes Artificial Intelligence, Soft Computing, Biometrics, Bio-Medical Engineering, Robotics and Speech Signal processing. She has published around 40 papers in various national and international journals/conferences. She is the editor and reviewer for international journals/books/conferences and also members of program and technical committees at international conferences. She received Young Scientist Award from Chhattisgarh Council of Science & Technology and also received Gold Medal in her post graduation.



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