



Myint Swe Khine (Ed.)

Robotics in STEM Education

Redesigning the Learning Experience

- Helps readers develop their understanding about the recent advances in the use of educational robotics in STEM education
- Discusses an effective tool for project-based learning that integrates coding, computational thinking and engineering skills
- Provides a balanced view of theory and practice

This book describes recent approaches in advancing STEM education with the use of robotics, innovative methods in integrating robotics in school subjects, engaging and stimulating students with robotics in classroom-based and out-of-school activities, and new ways of using robotics as an educational tool to provide diverse learning experiences. It addresses issues and challenges in generating enthusiasm among students and revamping curricula to provide application focused and hands-on approaches in learning. The book also provides effective strategies and emerging trends in using robotics, designing learning activities and how robotics impacts the students' interests and achievements in STEM related subjects. The frontiers of education are progressing very rapidly. This volume brought together a collection of projects and ideas which help us keep track of where the frontiers are moving. This book ticks lots of contemporary boxes: STEM, robotics, coding, and computational thinking among them. Most educators interested in the STEM phenomena will find many ideas in this book which challenge, provide evidence and suggest solutions related to both pedagogy and content. Regular reference to 21st Century skills, achieved through active collaborative learning in authentic contexts, ensures the enduring usefulness of this volume. John Williams Professor of Education and Director of the STEM Education Research Group Curtin University, Perth, Australia

1st ed. 2017, VI, 262 p. 119 illus.

Printed book

Hardcover

109,99 € | £99.99 | \$139.99

^[1]117,69 € (D) | 120,99 € (A) | CHF 130,00

Softcover

109,99 € | £99.99 | \$139.99

^[1]117,69 € (D) | 120,99 € (A) | CHF 130,00

eBook

93,08 € | £79.50 | \$109.00

^[2]93,08 € (D) | 93,08 € (A) | CHF 104,00Available from your library or
springer.com/shop

MyCopy ^[3]

Printed eBook for just

€ | \$ 24.99

springer.com/mycopy

Order online at springer.com / or for the Americas call (toll free) 1-800-SPRINGER / or email us at: customerservice@springernature.com. / For outside the Americas call +49 (0) 6221-345-4301 / or email us at: customerservice@springernature.com.

The first € price and the £ and \$ price are net prices, subject to local VAT. Prices indicated with [1] include VAT for books; the €(D) includes 7% for Germany, the €(A) includes 10% for Austria. Prices indicated with [2] include VAT for electronic products; 19% for Germany, 20% for Austria. All prices exclusive of carriage charges. Prices and other details are subject to change without notice. All errors and omissions excepted. [3] No discount for MyCopy.

