

1. Record Nr.	UNINA9910163988403321
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Titolo	Small Spacecraft Development Project-Based Learning : Implementation and Assessment of an Academic Program / / by Jeremy Straub, Ronald Arthur Marsh, David J. Whalen
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	9783319236452 3319236458
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XII, 231 p. 67 illus., 62 illus. in color.)
Disciplina	607.11
Soggetti	Technical education Educational technology Science - Study and teaching Engineering and Technology Education Digital Education and Educational Technology Science Education
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	1.Introduction -- 2.Why start a small spacecraft program? -- 3.To build, to buy, or in between? -- 4.Starting a small spacecraft program: types of programs and their benefits and drawbacks -- 5.Forming a program - funding and organizational issues -- 6.Forming a program: funding and organizational issues -- 7.Forming a program: technical and logistical issues -- 8.Setting educational goals and formative assessment -- 9.Summative assessment -- 10.Results of prior assessment work and its utility.
Sommario/riassunto	This book provides the information that is required to start a small spacecraft program for educational purposes. This will include a discussion of multiple approaches to program formation and build / buy / hybrid decision considerations. The book also discusses how a CubeSat (or other small spacecraft program) can be integrated into course and/or program curriculum and the ancillary benefits that such

a program can provide. The assessment of small spacecraft programs and participatory project-based learning programs is also discussed extensively. The book presents prior work related to program assessment (both for a single program and internationally) and discusses how similar techniques can be utilized for both formative and summative assessment of a new program. The utility of these metrics (and past assessment of other programs) in gaining buy-in for program formation and funding is also considered. .

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