

Outreach Book List - Mechanical Engineering

Mechanical Engineering			
Title of book	Suggested by	Blurb	Review
1 Structures: Or Why Things Don't Fall Down by J. E. Gordon	<i>Michael D Jones, Research Postgraduate Mechanical Engineering</i>	In "The New Science of Strong Materials" the author made plain the secrets of materials science. In this volume he explains the importance and properties of different structures.	<i>Structures is a brilliant introductory book into the world of structural theory. I first read it around the time I was making my applications to university to study mechanical engineering. I wanted to get an idea of the sort of subjects that would be covered in my course. This book is particularly good due to its fairly informal style. Although it focuses a lot on principles that are the bedrock of engineering analysis, it is by no means like a text book. Gordon's tone is much more conversational, and throughout the text he constantly references his own experiences alongside various other anecdotes and case studies, both from nature and the man made world. This gives the reader a good appreciation not only of how we have applied principles in order to create a wide range of structures, but also critically highlights a number of the incidents of structural failure that have led to step changes and improvements in our understanding. A must read for prospective students looking to apply for mechanical, civil, aeronautical and biomedical engineering.</i>
2 The Mars Trilogy by Kim Stanley-Robinson	<i>Michael D Jones, Research Postgraduate Mechanical Engineering</i>	Kim Stanley Robinson's massively successful and lavishly praised Mars trilogy. Mars has grown up It is fully terraformed – genetically engineered plants and animals live by newly built canals and young but stormy seas. It is politically independent. A brave and buzzing new world. Most of the First Hundred have died. Those that remain are like walking myths to Martian youth. Earth has grown too much Chronic overpopulation, bitter nationalism, scarce resources. For too many Terrans, Mars is a mocking utopia. A dream to live for, fight for... perhaps even die for.	<i>Comprising of Red Mars, Green Mars and Blue Mars, the trilogy is an epic tale of how humans might colonise Mars. The author has put an immense amount of effort into researching a myriad of topics that would be encountered if we were to try and start a civilization on the Red Planet, starting with the challenges faced by sending an initial colony to such a hostile world, as yet untouched by humanity, travelling right through to the politics and social issues associated with forming a new state on a different celestial body. The books not only follow the story of humanity as a whole on their journey across the solar system, but also of a number of interesting and varied protagonists, each fighting for their own vision of how society should establish itself on Mars. A fantastic read, both entertaining and thought provoking.</i>