Cognitive Radio - An Enabler for Internet of Things

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Description:
Internet of Things (IoT) deals with the interconnection of devices that can communicate with each other over the internet. Currently, several smart systems have evolved with the evolution in IoT. Cognitive Radio - an enabler for Internet of Things is a research level subject for all communication engineering students at undergraduate, post graduate and research levels. The contents of the book are designed to cover the prescribed syllabus for one semester course on the subject prescribed by universities. Concepts have been explained thoroughly in simple and lucid language. Mathematical analysis has been used wherever necessary followed by clear and lucid explanation of the findings and their implication.

Key technologies presented include dynamic spectrum access, spectrum sensing techniques, IEEE 802.22 and different radio network architectures. Their role and use in the context of mobile broadband access in general is explained, giving both a high level overview and a detailed step by step explanation.

The book includes a large number of diagrams, MATLAB examples, thereby enabling the readers to have a sound grasp of the concepts presented and their applications. This book is a must have resource for engineers and other professionals in the telecommunication industry working with cellular or wireless broadband technologies, helping comprehension of the process of utilization of the updated technology to enable being ahead competition.

Keywords: Cognitive Radio, Internet of Things, digital communications, communication systems, wireless communication, dynamic spectrum access, spectrum sensing techniques, IEEE 802.22, radio network architectures