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Titolo	Beginning LoRa Radio Networks with Arduino : Build Long Range, Low Power Wireless IoT Networks // by Pradeeka Seneviratne
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Descrizione fisica	1 online resource (XI, 309 p. 238 illus.)
Collana	Technology in action
Disciplina	004
Soggetti	Computer input-output equipment Computer networks Hardware and Maker Computer Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1: Introduction to LoRa and LoRaWAN -- Chapter 2: Obtaining and Preparing Hardware -- Chapter 3: Setting Up Software Development Environment -- Chapter 4: Building a Peer-to-Peer Channel -- Chapter 5: Building a LoRa Gateway -- Chapter 6: Connecting with IoT Servers Using RESTful API -- Chapter 7: Connecting with IoT Servers Using MQTT -- Chapter 8: GPS Tracking -- Appendix: LoRaWAN Channel Plans.
Sommario/riassunto	LoRa and LoRaWAN permit inexpensive, long-range connectivity for Internet of Things (IoT) devices in rural, remote and offshore industries. With LoRa wireless and LoRaWAN, you can build wide array of applications in the area of smart agriculture, smart cities, smart environment, smart healthcare, smart homes & buildings, smart industrial control, smart metering, smart supply chain & logistics, and many more. Learn the basics of LoRa wireless and LoRaWAN. Build LoRa end devices and gateways with LoRa radio transceiver modules, Arduino and Raspberry Pi. Start your journey by building a simple peer-to-peer communication channel with two LoRa end devices. Next, build a simple single channel LoRa gateway with Raspberry Pi and forward uplink data to The Things Network. Also, write simple JavaScript

functions to decode payloads to extract sensor data. Then, use RESTful API and MQTT protocol to send data to the ThingSpeak IoT platform. Finally, as a unique and useful project, build a real-time GPS tracker with The Things Network, IFTTT Maker Channel, IFTTT Webhooks, and Traccar.
