

CONTENTS

1. **Overview - Fog Computing and Internet-of-Things (IoT)** 1
C.S.R. Prabhu

SECTION - I: TECHNOLOGY

2. **Integrated IoT and Cloud Environment for Fingerprint Recognition** 27
Ehsan Nadarajan and Raja Kumar Buyya
3. **Smartphone-based Real Time Sensing and Actuation with the Cumulocity Internet of Things Platform** 32
Satish Narayana Srirama, Jakob Mass, Madis-Karli Koppel, Andreas Sepp and Shalva Avanashvili
4. **Future Technologies to Meet the IoT Needs: Die Level 3-D Packaging of Heterogeneous and Hybrid Systems** 43
N.P. Vamsi Krishna
5. **Conceptual Fog based Architecture for Monitoring and Acceleration of Bone Fracture Healing** 48
S. Jyothi, Raju Anitha and C.S.R. Prabhu
6. **Communication Protocols in IoT** 55
S.V. Ramanamurthy, V. Durga Sravani and Y. Dhatri Parimala
7. **Challenges on IoT Stack Model via TCP/IP Architecture** 61
P. Dhivya, Harismitaa R.K, T. Kalaikumaran and S. Karthik

SECTION - II: PRIVACY AND SECURITY

8. **Enhancing Data Security on Fog Computing with Interfacing Technologies** 71
A.K. Damodaram, S. Sreenivasa Chakravarthi and L. Venkateswara Reddy
9. **Route Map of Privacy Preservation to IoT: A Review** 76
Pravin N. Kathavate and J. Amudhavel
10. **Role of Risk Perception and Data Security in Enterprise Cloud Networks** 100
Jangala. Sasi Kiran
11. **Security in IoT** 109
K. Lakshmi Viveka, P.L. Kiranmayi, S.D. Sarayu and Md. Iftekharuddin

SECTION - III: APPLICATIONS

12. **Geo-spatial Land Records Database- A Framework for Rural Development** 119
Ajay Madhukar Josh, D.S. Venkatesh, Sunish Kumar and Ms Kanika Bansal and D.C. Misra
13. **Controlling of Electrical Gadgets at Home by Utilizing Smart Switch and Web** 138
K. Phanindra and K.Vijayabharathi
14. **Comparison of On-demand Taxi Services: Uber and Careem** 145
Ruqaiyyah Shaheen and Momal Rubab
15. **Internet of Things & Big Data Analytics for Climate Change** 153
J. Uma Mahesh and G. Vijay Kumar
16. **A Review on using IoT in Smart Cities** 163
N. Leelavathy, M.S.S. Saiteja and N.V.V. Jeejnesh
17. **IoT in Transportation and Logistics** 172
S.V. Ramana Murthy, Ch. Sai Sruthi and M.V. Sri Mounika
18. **Role of IoT in Road Safety** 179
S.V. Ramanamurthy, A. Jagan Mohan Sai Anvesh, G.A. Sai Vasa and M. Durga Sravanthi