

Preface

Intelligence has always been a fascinating dimension that is ‘simple to understand but complex to achieve’. For understanding intelligence various pathways are designed and defined along the progress of research. However, engineering intelligence into machines for communication, cooperation and coordination is always challenging. In this context, artificial intelligence can be defined as “a way through which machine can be made to understand environment, logically reason the information and learn for acting better”. Though the principle of intelligence is clear and convincing, achieving total intelligence is yet a dream come true. Over the years, many domains are developed for specialization and nourishment. Though this area has spread its roots through various specializations in addressing intelligence, it always suffers from limitations on selective applicability.

It is observed that technological advancements are much more effective when they are addressing day-to-day environments. The dynamic nature of these environments sets the challenges to technologies for their feasibility, stability and adaptability. The motivation for this book is to demonstrate the success of ambient intelligence in providing solutions for daily needs of humanity in ways possible. This book addresses implications of ambient intelligence in areas of domestic living, elderly care, robotics, communication, philosophy and so on.

Ambient intelligence, an amalgamation of need, convenience, behaviour, technology and intelligence is applied with greater significance over all sorts of living. Ambient intelligence is also an attempt to incorporate so-called “Hi-Tech” infrastructure into day-to-day life with an aim to improve quality and standard of living. The objective of this edited volume is to justify and enrich the philosophy that ambient intelligence is a boon to humanity with conceptual, philosophical, methodical and applicative understanding. The book also aims to schematically demonstrate developments in the direction of augmented sensors, embedded systems and behavioural intelligence towards Ambient Intelligent Networks or Smart Living Technology. The book contains chapters in the field of Ambient Intelligent Networks, which received highly recommended feedback during the review process. This book contains research work, with in-depth state of the art from

augmented sensors, embedded technology and artificial intelligence along with cutting-edge research and development of technologies and applications of Ambient Intelligent Networks. For readers of relevant research communities and individuals, this book is intended to introduce ideas, methods, technologies of the future development of humanity, Science and Technology.

Kiran Kumar Ravulakollu

Trends in Ambient Intelligent Systems

The Role of Computational Intelligence

Ravulakollu, K.K.; Khan, M.A.; Abraham, A. (Eds.)

2016, X, 234 p. 71 illus., 47 illus. in color., Hardcover

ISBN: 978-3-319-30182-2