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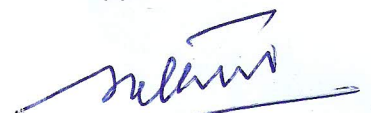
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## **FOREWORD**

The world is seeing a paradigm shift in the nature of warfare. There are persistent revolutions happening in the areas of warfare domains. The traditional domains of land, sea and air warfare are being replaced by the newer concepts of Asymmetric, Chemical, Biological, Psychological warfare. The challenges have largely shifted from border battles to internal insurgencies, sponsored by external forces. Changing technologies and availability of advanced gadgets have resulted in continuous refinement of methods governing these kinds of warfare.

Chemical and Biological agents are imminent threats. A small vial of infectious microorganisms can cripple a whole army. Meager amounts of highly toxic chemicals can have immeasurable destructive effects on the massive population. Owing to drastic chemical and biological warfare have become major threat to National Security. However, chemical and bio-sensing technologies based upon use of antibodies, genomic analysis, biochemical testing, other recognition interactions, and cellular-based responses are available for identification and analysis of these destructive elements.

Many institutions and industries are working on Chemical and Biological detectors of high sensitivity, for analyzing and providing solutions and suggesting protective mechanisms against Chemical & Biological agents. The book will serve as an important guide for providing information on commercially available gadgets, equipments sensors, detection technologies and protection means against these threats. The information on the manufacturers of chemical and bio detectors in defence domain is also provided. This book will be instrumental in educating various security agencies and aid them in decision making in the domain of CBRNE (Chemical, Biological, Radiation, Nuclear and high-yield Explosive) and related products for homeland and defense applications.

  
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