

Recent advances in intelligent engineering systems

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20418142&lokasi=lokal>

Abstrak

The book consists of three parts. The first part is devoted to the foundational aspects of computational intelligence. It consists of 8 chapters that include studies in genetic algorithms, fuzzy logic connectives, enhanced intelligence in product models, nature-inspired optimization technologies, particle swarm optimization, evolution algorithms, model complexity of neural networks, and fitness landscape analysis. The second part contains contributions to intelligent computation in networks, presented in 5 chapters. The covered subjects include the application of self-organizing maps for early detection of denial of service attacks, combating security threats via immunity and adaptability in cognitive radio networks, novel modifications in WSN network design for improved SNR and reliability, a conceptual framework for the design of audio based cognitive infocommunication channels, and a case study on the advantages of fuzzy and anytime signal- and image processing techniques. Computational intelligence represents a widely spread interdisciplinary research area with many applications in various disciplines including engineering, medicine, technology, environment, among others. Therefore, third part of this book consists of 6 chapters on applications. This is a very important part of the volume because the reader can find in it a wide range of fields where computational intelligence plays a significant role.