Selected Articles for Practical Projects

- Note that

- you must communicate one Topic and one Scope. For your choice you will receive a practical project in Python;
- You may also submit a proposal on another topic for consideration.

1. Topics

- 1. Hebbian Learning
- 2. Hopfield Neural Network
- 3. Non-linear PCA Neural Network
- 4. Self Organizing Maps
- 5. Multi-Layer Perceptron (MLP)
- 6. Convolutional Neural Networks
- 7. Recurrent Neural Networks
- 8. Transformers
- 9. Graph Neural Networks
- 10. Reinforcement Learning
- 11. Generative models
- 12. Autoencoders
- 13. Deep Belief Networks
- 14. Diffusion Models
- 15. Neuro-Symbolic models
- 16. Computational Intelligence based models

2. Scopes

- 1. Signal processing
- 2. Image processing
- 3. Video processing
- 4. Bioinformatics
- 5. Biomedical signal Processing
- 6. Multimodal signal Processing
- 7. Geophysical and Astrophysical Signal Processing
- 8. Underwater Acoustic Signal Processing
- 9. Underwater Image Signal Processing
- 10. Underwater Video Signal Processing
- 11. Learning of Neural Networks
- 12. Explainable Artificial Intelligence
- 13. Visual Question Answering
- 14. Deepfake detection
- 15. Supply chain