Radio technology plays an essential role in everyday life from broadcast radio to mobile communications, and much more. Various radio-based devices, such as radios, mobile phones, and Wi-Fi routers, rely on radio frequencies for their operation. The need for domain specific expertise in radio frequency data processing and analysis necessitates the collaboration of multiple organizations and disciplines. Machine learning (ML) is a field of artificial intelligence where systems are programmed to learn on their own. Radio frequency signal intelligence applications, like those used by law enforcement, need to generate robust machine learning algorithms quickly and with minimal input. This can be difficult with current hardware and software. ML for RF is a large family of wireless technologies that cover a wide range of distances, frequencies, and applications. The increasing need to automate and dominate our day-to-day home lives is being met with new approaches such as signals intelligence, electronic warfare, and communications. Smart sensor systems that use RF technology to monitor activity are commonly found in driverless vehicles, satellites, medical diagnostics, defense, and agriculture. The use of machine learning techniques for jamming and deception protection is increasing. To use ML algorithms at such a large scale, it is crucial that solutions can be adapted to domain-specific applications. Radio frequency data processing and analysis require domain-specific expertise that spans many organizations and disciplines in order to develop effective technologies. We invite authors from both industry and academia to submit original research and review articles, targeted to a wide audience that cover Machine learning (ML) approaches for Radio frequency (RF) Intelligence Applications, including, but not limited to, the following topic list:

- ML Approaches for RF Connectivity in Wearable’s and monitoring systems
- RF machine learning approaches in co-design of software and hardware
- Machine learning (ML) for RF degradation and resilience
- Radio frequency sensing and its innovative applications
- Machine learning (ML) for RF in Industrial, Scientific and Medical Applications
- Application specific ML for RF
- ML based Software defined radio, RF sensing, 5G, and beyond
- ML algorithms based used in medical field
- ML based RF embedded hardware and software
- Adversarial RFML,RF-ML datasets and RFML intuition
- IoT RF-ML and RF Energy Harvesting System.

**Schedule:**
Full-length paper submission: April 30th, 2023
Revised manuscript due: July 31th, 2023

**Guest Editors**
Dr. A. Jayanthiladevi, Srinivas University, Karnataka, India. drjayanthila@srinivasuniversity.edu.in
Dr. Nana Yaw Asabere, Accra Technical University, Ghana nyasabere@atu.edu.gh