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ADVANCES IN 'INTERNET OF THINGS'

The IOT is rapidly emerging with the goal to connect the unconnected. This refers to the interconnectedness of everyday objects through the internet. allowing them to connect and exchange data. One of the applications of IOT is smart homes. With a smile voice using IOT we can control lights, appliances, security systems etc., this makes our lives easier and contributes energy efficiency which in turn cost saving.

The recent applications are Edge computing, Artificial intelligence, Blockchain for IOT security 5G connectivity, Sustainability with Green IOT, etc.

However, due to lack of security by design and flawed implementations we are facing significant security and privacy challenges specific to IoT, such as perilous IoT botnet attacks, and novel privacy threats caused by widespread installation of wireless sensors, actuators and smart home appliances even in the private setting of our homes.

Unfortunately, basic security measures like properly encrypted communications does not protect against these threats. The massive scale of the IoT device population and enormous diversity of device hardware, operating systems, software frameworks and manufacturers make it very difficult to establish standard IoT security and privacy-protecting solutions by simply applying known solutions, neither for per-device security architectures nor for network security measures.

In particular, existing intrusion detection techniques to detect compromised IoT devices seem ineffective. In particular, we focus on approaches for flexible management of security associations (pairing) among devices introduced into the user's trust domain as well as effectively and efficiently identifying these devices based on their inherent communication behavior and using these behavior patterns to automatically and reliably detect compromised IoT devices. The major challenges in IOT are security, privacy and reliability.

Biography:

Dr. Dr.P. NAGESWARA RAO (05st APRIL 1956) obtained his B.E in Electronics & Communications from Bangalore University, Bangalore, INDIA in 1980, and M.E in ECE (Control Systems) from Andhra University, Visakhapatnam in 1982 and Ph.D in Data Compression from Acharya Nagarjuna University, Guntur in 2011. He has teaching experience of 42 years. At present Dr. P.N.R is working as a Professor in CSE Dept., and Director of VVIT and performing various levels of Administrative Duties along with Teaching. in the areas like Data Compersion, Micro Controlers and IoT and published more than 20 research papers in peer-reviewed Journals which includes SCI indexed.