GOVERNMENT COLLEGE OF ENGINEERING, AMRAVATI
(An Autonomous Institute of Govt. of Maharashtra)
"Towards Global Technological Excellence"
Near Kathora Naka, Amravati – 444 604, Maharashtra

Ph.: 0721-2531930, 2531929
www.gcoea.ac.in

Fax: 0721-2531931
e-mail: principal@gcoea.ac.in

Date:01/12/2023/4950

Invitation For Expression of Interest

To setup computer network laboratory, Department of Information Technology, Government College of Engineering, Amravati is inviting Expression of Interest for the supply of NetSim(R&D) version.

Sr. No.	Item	Specifications	Quantity
1.	NETSIM software for Standard (R&D) version	• **Component 1- Internetworks**: Ethernet - Fast & Gigabit, ARP, Routing - RIP, OSPF, WLAN - 802.11 a / b / g /p / n / ac & e, Minstrel Rate Adaptation Algorithm Propagation models - HATA Urban / Suburban, COST 231 HATA urban / Suburban, Indoor Home / Office / Factory, Friis Free Space, Log Distance. Shadowing - Constant, Lognormal. Fading - Rayleigh, Nakagami IPv4, Firewalls, Queuing - Round Robin, FIFO, Priority, WFQ, TCP - Old Tahoe, Tahoe, Reno, New Reno, BIC, CUBIC, Window Scaling, SACK UDP **Common Modules:** Traffic Generator: Voice, Video, FTP, Database, HTTP, Email, P2P, Custom, COAP Virtual Network Stack, Simulation Kernel, Command Line Interface, Metrics Engine with packet and event trace, Plot Generator, Packet Animator, Packet Encryption, External Interfaces: MATLAB®, WireShark, SUMO. • **Component 2 - Legacy & Cellular Networks:** Pure Aloha & Slotted Aloha, GSM and CDMA • **Component 3-Advanced Routing and Switching:** VLAN, Multicast Routing - IGMP, PIM, Layer 3 Switch, Access Control Lists, NAT • **Component 4 - Mobile Adhoc Networks:** MANET - DSR, AODV, OLSR, ZRP. Single and Multiple MANETs • **Component 5 - Software Defined Networks:** Based on Openflow v1.3 • **Component 6 - Internet of things:** IoT with RPL protocol Wireless Sensor Networks (WSN) LR-WPAN 802.15.4 • **Component 7 - Cognitive Radio Networks:** WRAN IEEE 802.22	R&D Single user license

	Component 8 - Long-Term Evolution Networks: LTE, LTE - Advanced. **Component 9 - Vehicular Adhoc Networks:** IEEE 1609 WAVE, Basic Safety Message (BSM) protocol per J2735 DSRC, Interface with SUMO for road traffic simulation **Component 10 - 5G NR mmWave Networks:** 3GPP 38 Series. Full Stack covering SDAP, PDCP, RLC - UM, TM, MAC, PHY - FR1 and FR2, mmWave propagation. **Component 11 - Satellite Communication Networks:** Geo Stationary Satellite. Forward link TDMA in Ku Band and Return link MF-TDMA in Ka band per DVB S2. Markov Loo Fading model. Device models for Satellite, Satellite Gateway, and Satellite User Terminals **Licensing Type:** Perpetual license	

Last date of Submission:10/12/2023

Principal
**Government College of Engineering
Amravati**

PRINCIPAL
Govt. College of Engineering
Amravati