



**Dept. of Computer Science and Engineering  
Indian Institute of Technology Patna**

**(Online) HACKATHON:**

**5G Slicing: Application in UAV**



**5G Slicing: Application in UAV  
September 18-21, 2021**

**Dr. Rajiv Misra, IIT Patna (PI)  
Dr Asif Ekbal, IIT Patna(Co-PI)**

**Important Dates**

**Hackathon dates: Sept. 18-21, 2021**

**Last date of Registration : 16<sup>th</sup> Sept, 2021**

**Confirmation and Invitation link : 17<sup>th</sup> Sept, 2021**

**ABOUT IIT PATNA** Indian Institute of Technology Patna is one of the new IITs established by an act of parliament on August 06, 2008. IIT Patna is an autonomous institute of education and research in science, engineering, and technology located in Patna, India.

**CHALLENGE DESCRIPTION**

- 5G Network Slicing with application vertical UAVs
- 5G MEC and application vertical UAVs
- 5G Network Slicing and Virtualization
- 5G Slicing for UAV Applications in Industry, Agriculture, Disaster-Management
- 5G Network Slicing: AI , Machine Learning
- 5G Network Slicing: Reinforcement Learning
- 5G Network Slicing using IoT, Fog and Edge

**IIT PATNA 5G NETWORK SLICING PROJECT**

The R&D Project on 5G Network Slicing is sponsored by MeitY, Govt of India. The aim of competition is to provide innovation challenge in 5G Network Slicing technologies and infrastructure, and Network Slicing supporting application verticals using eMBB (enhanced Mobile Broadband), mMTC (massive Machine Type Communications), URLLC (Ultra Reliable Low Latency Communications) with UAV applications. 5G network slices with Unmanned Aerial Vehicles (UAV) equipped with multi-access edge computing (MEC) facilities using AI/ML/Reinforcement Learning. The architecture and possible applications of UAVs in the frame of a 5G (& Beyond) network supporting network slicing and lightweight virtualization.

**BROAD SCOPE HACKATHON**

This challenge is to provide platform to innovative technologies for 5G Network Slicing services and application using concepts of AI/ML for next-generation innovations of industry use-cases. The topics will focus on applications to benefit society using innovative technologies for people from practioners, professionals, engineers, industry and academic/research communities associated with the multi-disciplines of Computer Science, Electrical, and Electronics etc

**Panel of Experts for competition ( tentative)**

Dr B.M.Baveja(MeitY), Prof Kiran Kuchi(IIT Hyd), Prof Bheemarjun Tamma Reddy(IIT Hyd), Dr Antony Franklin(IIT Hyd), Dr Rajiv Misra, Dr Asif Ekbal, and experts from IITs and Industry

**TARGET PARTICIPANTS**

The Hackathon participation is suitable for Students, Startups, Professionals, NGOs, Engineers/Scientists, Govt. officers, Faculty members interested in the 5G technologies for Smart- services and industrial applications using AI/ML/Reinforcement Learning for advance potential applications.

**HACKATHON REGISTRATION**

**There is no participation fees.**

The participation team will be adjudged by Experts and Participants will be Awarded with **Prizes** and certificate. **Winner** of competition will Awarded with **Prize Money**.

**REGISTRATION LINK**

Registration link (Google Form): (OPEN)  
<https://forms.gle/Ys1J4bfSthJC8hNM9>

For any query please write to: **Rohit Kumar Gupta ( Phd Scholar)** at [rohit10495@gmail.com](mailto:rohit10495@gmail.com), and [rajivm@iitp.ac.in](mailto:rajivm@iitp.ac.in)