

# Center of excellence

## Intel Technologies

### About Us

Galgotias University has Intel center of Excellence which is equipped with high performance computing machines and software's which facilitate machine learning, deep learning, and other parallel computations. The School of Computer Science and Engineering has dedicated research groups. With the help of center of excellence performs exquisite research resulting in incredible papers in high quality Journals. This center aids other schools as well as to the university.

Aim of Center of Excellence happens to support scalable, open-source curricula and skill-set development by taking disruptive technology from world's leading industries. The schematic diagram below shows the various skills that are necessary for success in our constantly evolving world.



Major objectives of Intel center of excellence are.

- To enhance student employability through experimental learning.
- to promote basic applied and interdisciplinary research
- to encourage innovation in research
- to promote startup ideas implementation among students
- to mentor students and faculty in research.
- two transfer benefits of research to community
- To promote industry and collaborative activities.

## The Team

**Coordinator** - Dr. Nitin Mishra, Professor school of computing science and engineering Galgotias university.

**Center of Excellence Coordinator:** - Dr. Shobha Tyagi , Associate professor School of Computing Science and Engineering.

## Research Team:

All research groups of SCSE are part of the team.

S.No	School Research Group	Group Coordinator / Co-coordinator
1	<b>Computer Networks Research Group</b> (It includes Network Models, Wireless Networks, adhoc Networks, Body Area Networks etc.)	<b>Dr.A. Suresh Kumar (Coordinator)</b> Dr. T. Ganesh Kumar (Co-Coordinator)
2	<b>Data Science and AI Group</b> (It includes Artificial Intelligence and its applications, Intelligent Systems as well as the design, construction, Operation and use of Robots, automated Commerce and Natural Language Processing etc.)	<b>Dr. Prashant Johri( Coordinator)</b> Dr Satyajee Srivastava ( Co - Coordinator)  Mr Pratyush Kumar Deka (Co-Coordinator)
3	<b>Cyber Security &amp; Privacy Research Group:</b> (It includes Cyber Security, Information Security, Biometrics, E-commerce and E-Banking etc)	<b>Dr Srinivasan (Coordinator)</b> Mr. C. Vairval (Co-Coordinator)
4	<b>Computer Graphics and Digital Image Processing Research Group :</b> Multimedia, Animation and Game Science, Virtual & Automated Reality etc)	<b>Dr.L.Godlin Atlas (Coordinator)</b> Mr. Gokul Rajan V (Co-Coordinator)
5	<b>Cloud Computing and Distributed Systems Research Group:</b> (It includes cloud computing, Distributed Systems & their organization, architecture as well as applications etc.	<b>Dr. Ajay Shankar Singh (Coordinator)</b> Dr. A Daniel (Co-Coordinator)
6.	<b>Core and Emerging Technologies Research Group:</b>	<b>Dr. Thirunavukkarasan M. (Coordinator)</b> Dr. J.N. Singh ( Co - Coordinator)

(Robotic Process Automation, Blueprism, Oracle academy, RedHat academy, Kotlin, etc)	
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### Research Team (Students)

1. Radha Yadav, MTech 2<sup>nd</sup> year
2. Shweta, MTech 2<sup>nd</sup> Year
3. Manvendra Singh, MTech 2<sup>nd</sup> year

### Facilities Available



1. High performance computing
2. machine learning
3. Deep learning
4. HTTP servers
5. Python And Java servers

6. Other facilities are also available on demand.

#### Hardware and software components available

Option	Description	Qty
1	Intel® Intelligent Systems Lab for the Edge Computing	1
2	Intel® Intelligent Systems Lab for High Performance Computing and Artificial Intelligence: kit includes Intel® Xeon Server with Intel® Parallel Studio Software (2 seat floating license for 1 year)	1

#### External Experts

1. Dr. Nagendra Singh, NIT Hamirpur  
[Dr. Nagendra Pratap Singh \(nith.ac.in\)](mailto:Dr.NagendraPratapSingh@nith.ac.in)

# Center of Excellence in Blockchain

## Core and Emerging Technologies

### About the Research Group

Technology has the power to disrupt, shifting a market almost overnight. Technology is growing at rapid pace and is already defining what's next. PwC's New Services & Emerging Tech team analysed the business impact and commercial viability of more than 250 emerging technologies to zero in on the "Essential Eight" that matter most for business, across every industry, over the next three to five years - 76% of CEOs in our annual survey are worried about the speed of tech change. And 64% acknowledge that changes in the technology used to run their businesses will be disruptive over the next five years. Emerging technology should be a key part of every company's corporate strategy.

**Core and Emerging Technologies** research group aims to research and develop scalable, open-source curricula and skill-set development by taking disruptive technology from world's leading industries. The Center of Excellence in Blockchain's prime objective is to promote its use and facilitate rapid adoption & on-boarding of Blockchain based solutions. The Center will focus on advancing blockchain technologies, platforms, assets and systems to develop industry understanding and implementation. The team will collaborate with global experts to lead development and implementation of innovative blockchain solutions from proof of concept to production. The centre will provide research-led thought leadership and drive strategic blockchain developments to address complex business problems.

### The Team

**Coordinator** - Dr. Sameen school of computing science and engineering Galgotias university.

**Center of Excellence Coordinator:** - Dr. Shobha Tyagi , Associate professor School of Computing Science and Engineering.

**Research Team:** All research groups of SCSE are part of the team.

S.No	School Research Group	Group Coordinator / Co-coordinator
1	<b>Core and Emerging Technologies Research Group:</b>  (Blockchain, Robotic Process Automation, Blueprism, Oracle academy, RedHat academy, Kotlin, etc)	<b>Dr. Thirunavukkarasan M. (Coordinator)</b> Dr. J.N. Singh ( Co - Coordinator)  Mr Mohd Sameen ( Co-Ordinator)
2	<b>Data Science and AI Group</b> (It includes Artificial Intelligence and its applications, Intelligent Systems as well as the design, construction, Operation and use of Robots,	<b>Dr. Prashant Johri( Coordinator)</b> Dr Satyajee Srivastava ( Co - Coordinator)  Mr Pratyush Kumar Deka (Co-Coordinator)

	automated Commerce and Natural Language Processing etc.)	
3	<b>Cyber Security &amp; Privacy Research Group:</b> (It includes Cyber Security, Information Security, Biometrics, E-commerce and E-Banking etc)	<b>Dr Srinivasan (Coordinator)</b> Mr. C. Vairval (Co-Coordinator)
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6.	<b>Computer Networks Research Group</b> (It includes Network Models, Wireless Networks, adhoc Networks, Body Area Networks etc.)	<b>Dr.A. Suresh Kumar (Coordinator)</b> Dr. T. Ganesh Kumar (Co-Coordinator)

### Research Scholars

Ms. RITU SALUJA

Ms. Rajani

Ms. Arko Bagchi

Mr. Shrikant Patel

Ms. Barkha kakkar

Mr. Tanish Amadan

Mr. Deepak Gupta

Mr. Ravi Bhushan

Mr. AJAY SINGH

Ms. Snehlata beriwal

Mr. BADAL BHUSHAN

Ms. Esha Banerjee

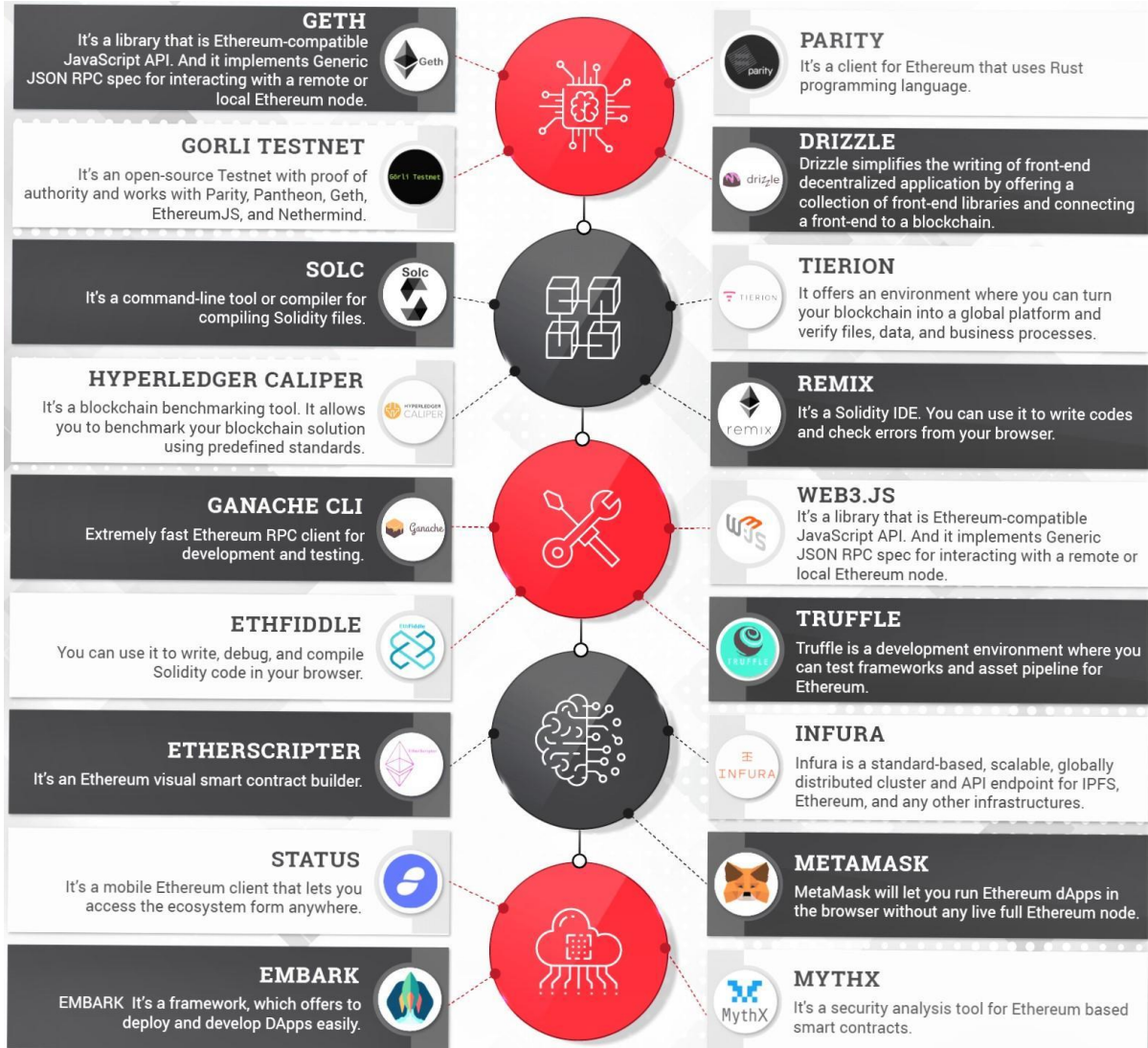
Mr. Rajeev Sharma

### MOU Signed:

1. **TPCRA World** (Trade Promotion Council of Robotics and Automation)  
G-20, Greater Kailash  
New Delhi- 110019



## Facilities Available



7. **Remix environment for smart contract development in Solidity**
8. **Geth, Truffle, Ganache for Ethereum development**
9. **NodeJS servers**
10. **Python and Java servers**
11. **Other facilities are also available on demand.**

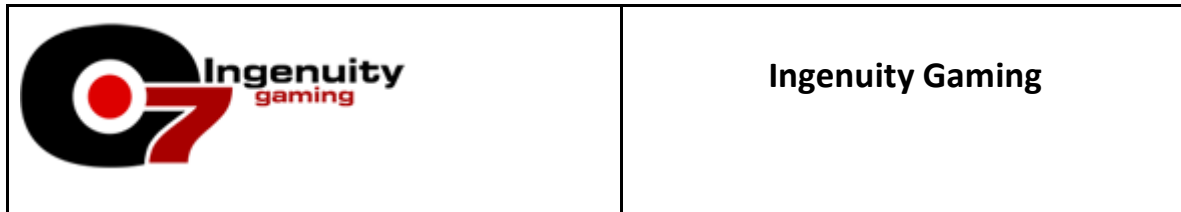
## External Experts

1. **Dr. B Bazeer Ahamed**  
Dept. of IT, University of Technology and Applied Sciences  
Al Musanna Sultanate of Oman
2. **Dr. K Murugan**  
SCOPE,VIT, Vellore



# School of Computing Science and Engineering

## Industry Oriented Lab



Galgotias University – SCSE signed the MOU with Ingenuity Gaming. Ingenuity Gaming is the largest independent technical and creative talent pool for the online & land based global gambling industry. The prime object of this collaboration with Ingenuity Gaming to explore the career opportunity with gaming industry and improve the student imagination into the Gaming applications with proven technology platform. The collaboration setups the roadmaps of the student and faculty to understand and learn the technology framework used in the gaming development.

### **The Syllabus proposed by ingenuity Gaming:**

1. Programming with basic data structures like multi-dimensional arrays, stack, queue, linked list
2. Dynamic memory allocation
3. Inline function, Pass by value/reference, Operator overloading, Function overloading, Exception handling
4. Virtual function, Virtual destructors, Virtual assignment, Pure virtual functions, abstract base classes
5. Bitwise operators
6. Internal and external linkage, Global constants and inline variables, Typedefs and type aliases, Enumerated types
7. Implicit and explicit type conversion (coercion/casting) and static cast
8. Pointers and references, Null pointers, void pointers, function pointer, smart pointers
9. Friend function/class, Template class/function
10. Standard library complex data types and algorithms e.g. `std::array`, `std::vector`, `std::sort`, `std::find` etc.
11. Advanced C++ with boost library

12. Lambda expression
13. Graphic programming using SFML
14. Microsoft development tools and Windows API
15. Linux kernel modelling skills are a plus
16. Continuous integration, code coverage and unit testing
17. PC embedded systems
18. Basic knowledge about low-level PC BIOS, MBR and boot code

**Following faculties will be given training in the same course:**

1. Mr. Damodharan D.
2. Ms. Kamakshi Gupta
3. Ms. Nidhi Gupta
4. Dr. Saurabh Kumar Srivastava
5. Mr. Deependra Rastogi
6. Mr. Himanshu Sharma
7. Mr. G. Nagarajan
8. Dr. J. N. Singh
9. Mr. S. Prakash

