सत्यमेव जयते
Ministry of Education
Government of India

GLOBAL INITIATIVE OF ACADEMIC NETWORKS

Global Initiative on Academic Network (GIAN) Program

A FRAMEWORK FOR INTEROPERABLE BLOCKCHAIN TO STREAMLINE SUPPLY CHAIN COMMUNICATIONS

[Online Mode]

28 November - 2 December 2022

Department of Electronics and Communication Engineering

National Institute of Technology Puducherry,

Karaikal - 609609, India

GIAN Program

Global Initiative of Academic Networks (GIAN) is a new program in Higher Education approved by Govt. of India to involve the internationally acclaimed talent pool of scientists and entrepreneurs, to encourage their engagement with the institutes of Higher Education in India which will lead to augmentation of the country's existing academic resources, accelerate the pace of quality reform, and elevate India's scientific and technological capacity to global excellence. The Global Initiative of Academic Networks program aims to garner the best international experience into our systems of education that will enable the interaction of students and faculty with the best academic and industry experts from all over the world and also to share their experiences and expertise. More details on various GIAN courses are available at - http://www.gian.iitkgp.ac.in/

About The Institute

National Institute of Technology Puducherry (NITPY) is nestled in the scenes of Karaikal, a coastal town in the basin of river Kaveri. It was started by MHRD (now Ministry of Education), Govt. of India, in 2010. Notwithstanding the tender age, NITPY is committed to produce effective and responsible scientists and engineers who have

the ability to serve the nation on its prosperous journey. Faculties and students are having experience in modern and up-to-date scientific developments. NITPY also enjoys the status "An Institute of National Importance" given by MoE, Govt. of India, New Delhi.

The institute is situated in Karaikal, which can be reached by Air through Chennai. Karaikal is the nearest railway station to NIT Puducherry. The journey (by road) from Puducherry to Karaikal may take approx. 3 Hrs.

The Department

The department of Electronics and Communication Engineering was established during the inception of the institute in the year 2010. It offers undergraduate (B. Tech.), post-graduate (M.Tech in VLSI Design), and Ph.D. programs in the various fields of Electronics and Communication Engineering. The department has been imparting quality education to the students. The UG curriculum provides a strong base for the students in Electronics and Communication Engineering and provides exposure to the latest technologies. The department has established state-of-the-art laboratories with sophisticated equipment for undergraduate courses and research work.

Overview of the Course

Over the past several years, blockchain technology has profoundly impacted how we conduct business and how we exchange or transfer business assets in the supply chain industry. Interoperability can be described as the ability to transfer value and assets across distinct blockchain ecosystems. This is especially important in supply chain use cases of blockchain where many different organizations or suppliers are involved. Interoperability is becoming important for businesses because different businesses use different blockchain platforms; however, they need to communicate with each other seamlessly.

Objectives

The primary objectives of the course are as follows:

- Expose participants to the fundamentals and incredibly disruptive potential of blockchain technology for supply chain and other industry sectors.
- Train participants to get a clear picture of how and why blockchain will transform business-to-business information exchange seamlessly.
- Educate participants on how blockchain interoperability will drive optimized business processes and empower businesses.
- Enlighten participants to a new paradigm, where different blockchain platforms can seamlessly talk to each other and share and secure information in a novel way.
- Provide exposure to practical problems

and their solutions, through case studies and live projects in interoperable blockchains and supply chain management.

Who Should Attend

- Faculties, Researchers, and Students (pursuing Ph.D./Masters/Bachelors courses).
- MSc, Ph.D., Post Doc research students with interests in the blockchain.

Foreign Faculty of the Course

Professor Vidyasagar Potdar, a multi-award-winning researcher and the **Director of the Blockchain R&D Lab at Curtin University Australia**, has published over 160 scientific research publications and attracted over two million dollars in external research funds in blockchain and smart grid area. His key areas of research include blockchain, smart grids, and the internet of things. His research is widely cited. So far, he has 4395 citations, h-index 35, and i10 index is 84. He has supervised 10 Ph.D. students. He was awarded the best researcher award in 2011, 2012, and 2018. He also won the Emerald Literati Award for his outstanding research publication published by Emerald. He is also a recipient of a number of research scholarships including Curtin's Ignition, Smart Something, and AgriStart HARVEST Accelerator.

He regularly reviews articles for top international journals, including IEEE Transactions on Industrial Electronics, IEEE Transactions on Information Security and Forensics, IEEE Transactions on Industrial Informatics, and Journal of Systems and Software. He is also a guest editor for IEEE Transactions on Industrial Informatics. He has organized more than 25 international workshops at IEEE and ACM conferences worldwide and was the General Chair for CEAS 2011, CUBE 2012, and CUBE 2013. He has more than 15 years of full-time research experience, and in this period, he was involved in the management of a Multi-Disciplinary Research Institute at Curtin University, where he took the responsibility of research commercialization, research mentoring, business development, and research student recruitment.

For more information, please visit:

Homepage:

https://staffportal.curtin.edu.au/staff/profile/view/vidy-potdar-37cc986d/

Google Scholar:

https://scholar.google.co.in/citations?user=GFkKFnkAAAAJ&hl=en

Topics

- Introduction to supply chain
- Introduction to blockchain technology
- Concepts of blockchain interoperability
- Blockchain interoperability with IoT
- Interoperable blockchain designs principles
- Blockchain reliability & smart contracts
- Blockchain interoperability platforms

- Autonomous gateway nodes
- Blockchain interoperability – supply chain case studies.

Registration Process

Step 1: One-Time Web (Portal) Registration

The candidates are advised to visit GIAN Website using the link: https://gian.iitkgp.ac.in/GREGN/index and create Login User ID and Password. Fill up the blank registration form and do web registration by paying Rs. 500 online through Net Banking/Debit/Credit Card. This provides the candidate with lifetime registration to enroll in any number of the GIAN courses offered. Those candidates, who have already enrolled at the GIAN portal, need not register again.

Step 2: Course Registration (Through GIAN Portal)

Log in to the GIAN portal with the user ID and Password created. Click on "Course Registration" option given at the top of the registration form. Select the Course titled "A FRAMEWORK FOR INTEROPERABLE BLOCKCHAIN TO STREAMLINE SUPPLY CHAIN COMMUNICATIONS" from the list and click on '**Save**' option. Confirm your registration by Clicking on '**Confirm Course**'.

Step 3: Course Fee and Payment

After GIAN Registration, the Course Fee is to be paid online in the account of NIT Puducherry, the details of which are given below:

Course Fee

Participants from abroad: US $600

Industry / Research organizations: Rs. 2500/

Faculty members / Researchers: Rs.2000/-

Students (pursuing Ph.D./Masters/Bachelors courses): Rs 1000/-

Account details

Bank Name	**State Bank of India**
Bank Address	NITPY Karaikal Branch
Account Name	NITPY Workshop/Conference
Account No.	37854338444
IFSC code	SBIN0070848
MICR Code	609002106
Branch Code	70848
A/C. Type	Current
SWIFT Code	SBININBB228

The Course Fee covers the course materials and access to all the sessions. The participants should pay the registration fee through online mode (NEFT/IMPS) and fill in the transaction ID/details in the Google Form using the link given in Step-4.

Step 4: Registration

After online payment of Course Fee, please **fill and submit** the Google Form using the following link.

Google Form Link:

https://docs.google.com/forms/d/e/1FAIpQL

SePmO5PYo38yxfD6_SvhwoqYwnADQ5CjgQ5rMJjEKsgKLuuNQ/viewform

Local GIAN Coordinator

Dr. Koperundevi G. is working as an Associate Professor in the department of EEE, National Institute of Technology Puducherry. Her area of interests are power electronics, and high voltage engineering.

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Host Faculty & Course Coordinator

Dr. Malaya Kumar Nath is working as an Assistant Professor in the Department of ECE, National Institute of Technology Puducherry. His research areas include medical image processing and pattern recognition.

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For support during registration please contact: Mr. Vipin. V, Email: vipinscms@gmail.com, Phone No: +91-8086889123.

Department of Electronics and Communication Engineering

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https://www.nitpy.ac.in/

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