सत्यमेव जयते
नीति आयोग

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Government of India
Ministry of Human Resource Development

GLOBAL INITIATIVE OF ACADEMIC NETWORKS

MANGALORE UNIVERSITY

GLOBAL INITIATIVE OF ACADEMIC NETWORKS

ONE WEEK GIAN COURSE ON

DIGITAL PAYMENTS

Technology for Cashless Society

23 - 27th, July 2018

Department of Studies & Research in Computer Science
Mangalore University, Mangalagangothri
Karnataka

GLOBAL INITIATIVE FOR ACADEMIC NETWORK (GIAN)

Govt. of India initiated a Programme Global Initiative of Academic Networks (GIAN) in Higher Education aimed at tapping the talent pool of scientists and entrepreneurs, internationally to encourage their engagement with the institutes of Higher Education in India so as to augment the country's existing academic resources, accelerate the pace of quality reform, and elevate India's scientific and technological capacity to global excellence. In order to garner the best international experience into our systems of education, enable interaction of students and faculty with the best academic and industry experts from all over the world and also share their experiences and expertise to motivate people to work on Indian problems, realising the need for a Scheme of International Summer and Winter Term. Owing this MHRD initiated GIAN- A system of Guest Lectures by internationally and nationally renowned experts would be evolved along with a comprehensive Faculty Development Programme not only for new IITs, IIMs, IISERs but also other institutions in the country.

Objectives of GIAN include footfalls of reputed international faculty; opportunity to our faculty to learn and share knowledge and teaching skills; opportunity to students to seek knowledge from reputed International faculty; To create avenue for possible collaborative research with the international faculty; Develop high quality course material in niche areas, and many more.

The Government of India constituted a Committee of Officers to enable 100 per cent conversion of Government – Citizen Transactions to the digital platform. The Committee led by NITI Aayog will also implement an action plan on advocacy, awareness and handholding efforts among public, micro enterprises and other stakeholders. Under GIAN, the NITI Aayog has initiated a programme that reaches the public to know about 'Digital Payment'. **The proposal submitted by Mangalore University on Digital Payment: Technology for Cashless Society is accepted by GIAN and the course is scheduled to be held during 23-27, July 2018. Mr. B.N. Satpathy, consultant, NITI Aayog is the coordinator from NITI Aayog to implement this GIAN Course on Digital Payments: Technology for Cashless Society.**

MANGALORE UNIVERSITY

Over the past 36 years, Mangalore University has grown in stature and is today recognised as one of the premier Universities in the country accredited by NAAC with 'A' grade. With a mere 4 departments to begin with on the campus today our University has 26 Departments offering 37 PG programmes, 29 Ph D programmes and over 210 colleges are affiliated to the University. Mangalore University is known for conducting its academic programmes and examinations as per schedule. The credit based semester system at the undergraduate level and the choice based credit system for the two year (four semesters) Master's degree programme are working well.

Adequate infrastructure is always a priority for the University. The basic facilities available on the campus include administrative building, Faculty buildings, Library, Student Hostels, Staff Quarters, Guest House, a well-equipped out-patient health centre, and sports facilities including a 400 metre track and Indoor Games Complex. The Mangala Auditorium with the stat-of-the-art facilities is available for all the major and mega events. The University has its own water supply arrangement on the campus. Among other facilities Banking, Cyber Cafe, INFLIBNET and postal and communication facilities are included.The 1GBps internet connectivity of the University has been now extended to all the students and faculty 24X7 using Wi-Fi technology. Under the able leadership of Prof. K Byrappa, Hon'ble Vice Chancellor, Mangalore University has acquired 231st place at the Global Ranking and 3rd place at National Ranking for its academic excellence.

PREAMBLE

Digital payments are the genesis of e-Commerce. Digital payments are expanding rapidly but also changing because of the pervasive use of tablets and smartphones, whose use is not confined to consumer transactions. This course covers a wide variety of Digital payment mechanisms that are used to make payments internationally each year. The course is designed to understand the use of new technologies in the movement of money, from small peer-to-peer transactions through large interbank payments. Even though everyone is familiar with money on a day-to-day basis, very few people, even in the financial services sector, understand how money actually moves.

Payments are complex because they usually involve several parties -- in addition to the buyer and seller there are also the buyer's bank, the seller's bank and the country's central bank, as well as service providers who transmit payment data and aggregate transactions. When different currencies are involved, the central banks of two countries are involved.

Every payment system must provide for secure communication of payment orders. The course covers banking systems, e-payment security, Internet banking, wireless payments, stored-value cards, micropayments, peer-to-peer payments, B2B payments and the future of money.

OBJECTIVES

The primary objectives of the course are as follows:

To understand the different forms of Digital money, how money moves through the world's banking systems, how security is achieved in payment systems, how Digital banking works and the unique role of payment systems in world commerce. After taking this course, you should be able to select an appropriate payment method to fit a particular business model even as underlying technologies such as mobile platforms undergoing rapid changes.

COURSE CONTENTS

INTRODUCTION TO MONEY

Money and E-pay systems, Fiduciary, scriptural, Token & notational money, World banking, central and commercial banks, Money transfers: checks, e-transfer.

TOKENIZATION FUNDAMENTALS

Tokenization Approaches, EMVco Payment Tokens - Flows, Roles, Data Elements and Other Tokenization initiatives on the Horizon

AUTOCLEARING & SETTLEMENT SYSTEMS

Payment graphs, RTGS, NEFT, Automated clearing, ATMs, Hong Kong and U.S. bankings, Fedwire, CHIPS and SWIFT.

EPAYMENT SECURITY & DIGITAL SIGNATURES

Digital certificates, Public-key, Digital IDs and remote authentication, SSL/TLS Protocol and credit cards, SET and Visa 3D-Secure.

SMART & STORED-VALUE CARDS, OCTOPUS

Smart card and security, RFID cards, PIN verification, Smart Debit and Credit, Gift card technology and Octopus.

MICROPAYMENTS, MOBILE PAYMENTS

Micropayment systems: brokers, Script systems: Payword and Micro-Mint, Peppercoin, MR1 and MR2, Wireless payments.

DIGITAL WALLETS

Google wallet, Obopay, Apple Pay , Android Pay vs Samsung Pay vs Chase Pay, Visa Checkout, MasterCard, MasterPass, and AmEx Express, P2P Mobile Apps, M-Pesa Case Study.

P2P, E-CASH & VIRTUAL MONEY SYSTEMS

P2P payments: PayPal, Anonymity, Digital denominations, Chaum's double-spending protocol, Virtual currencies and Bitcoin.

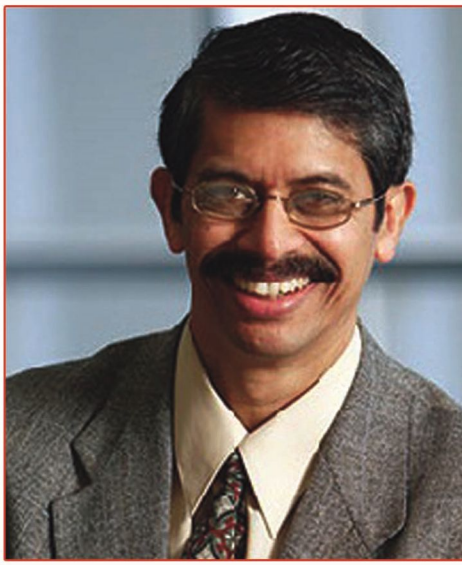
E-INVOICE PRESENTMENT AND PAYMENT

E-statement, Biller & customer service providers, Bill data mining, Invoice elimination: SBT, Future of e-Payment, Braintree, Stripe, and We-Pay.

WHAT'S NEXT?

In-App Payments - Use Cases and Implications, Buy Buttons - Evolution or Revolution? Digital Payments and the Internet of Things. Artificial Intelligence in Banking : Chatbots, FinTech, Blockchain Technology, Cryptocurrency transactions, 'India Chain' - India's largest blockchain network by NITI Aayog.

TEACHING FACULTY



Prof. H. R. Rao

Prof.Rao is a Professor of Computer Science, UTSA and AT&T Distinguished Chair in Infrastructure Assurance and Security, San Antonio College of Business, the University of Texas.

Prof. Rao also holds a courtesy appointment as full professor in the UTSA Department of Computer Science. He graduated from Krannert Graduate School of Management at Purdue University.

His interests are in the areas of management information systems, decision support systems, e-business, emergency response management systems and information assurance. He has chaired sessions at international conferences and presented numerous papers. He also has co-edited four books, including Information Assurance Assurance Security and Privacy Services and Information Assurance in Financial Services. He has authored or co-authored more than 200 technical papers, of which more than 125 are published in archival journals.

In November 2016, Professor Rao received the prestigious Information Systems Society Distinguished Fellow Award (Class of 2016) for outstanding intellectual contributions to the information systems discipline.

Rao's work has received best paper and best paper runner up awards at ISR, AMCIS and ICIS. He has received funding for his research from the National Science Foundation, the Department of Defense and the Canadian Embassy. He also received the Fulbright fellowship in 2004.

Rao is chair of IFIP WG 8.11/11.13, the working group for Information Systems Security Research. He is co-editor in chief of Information Systems Frontiers, advisory editor of Decision Support Systems, associate editor of ACM TMIS and senior editor at MIS Quarterly.

Rao was ranked No. 3 in publication productivity internationally in a 2011 Communications of the Association for Information Systems study. In March 2017, Rao's h-index was 50 and his i-10 index was 144. He is a graduate of the FBI Citizens Academy.

COURSE CO-ORDINATOR

Prof. B.H. Shekar

Dr. Shekar is a Professor of Computer Science and Special Officer (Administration), Mangalore University. He received his Ph.D in Computer Science from University of Mysore.

Prof. Shekar has published nearly 145 articles in International and National level Journals and Conferences, in the area of Pattern Recognition, Image Processing, Database Systems and Data Structures. Awarded DAAD fellowship to carry out part of his research work University Nurenburg, Germany during 2004 and Commonwealth Academic fellowship to carry out his Post-doctoral work at University of Surrey, UK during 2014 and Teachers Fellowship, DRDO Fellowship and NMS scholarship during his Research, Master's and Graduate Studies.

Worked as Member of Board of Studies and Board of Examinations of Mangalore University and other neighboring universities. Successfully completed Two collaborative project works and One is in progess with Moscow State University, Moscow awarded under DST-RFBR sponsorship.

Successfully completed the first bilateral workshop with Moscow State University, awarded under DST-RFBR sponsorship: Emerging Applications of Computer Vision-2011. He is the programme chair for the Fisrt Internaltional Conferecne on Data Analytics and Learning 2018, University of Mysore, Karnataka. In the Month of January 2018, successfully organised a GIAN Course on Visual Object Recognition, under the GIAN Initiative of MHRD, Govt. of India.

Who Should Attend?

- Students at all levels (BTech/BE/ME/MTech/MCA/MSc/MBA/MCom/PhD)
- Faculty from Universities and Technical Institutions
- Administrative Personnel from Government & Private Sectors
- Researchers from Industry/Academics

Registration Fee

- UG/PG Students: Rs. 2000/-
- Research Scholars: Rs. 3000/-
- Faculty/Administrative Personnel:Rs. 5000/-
- Freelancer/Industry Participants: Rs. 8000/-
- International Participants : 200/- USD

How to Register?

STAGE 1: Web (GIAN Portal) Registration: Visit GIAN Website and create login User ID and Password. Weblink : http://www.gian.iitkgp.ac.in/GREGN/index

Fill up the blank registration form and do web registration by paying Rs. 500/- online through Net Banking/Debit/Credit card. This provides you with life time registration to enrol in any number of the GIAN courses offered.

STAGE 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 **"DIGITAL PAYMENTS: Technology for Cashless Society (176019K03)"** from the list and click on "Save" option.

Confirm your registration by Clicking on "Confirm Course".

FEE PAYMENT MODE: DD for the applicable registration fee in favor of The Finance Officer, Mangalore University, payable through any Nationalized Bank at Mangalore.

STAGE 3: Course Enrolment (with the Course Coordinator): Visit the COURSE website and submit the candidate details and D.D particulars in the Registration Section.

Weblink : https://mangaloreuniversity.ac.in/dpgian/register.html

STAGE 4: The scanned copies of duly filled registration form and DD must reach by e-mail on or before 16th July 2018 to, bhshekar@gmail.com with a CC to gian.bhs@gmail.com.

The hard copies of Registration form and DD shall be submitted in person at the time of course attendance by 9.30 a.m.

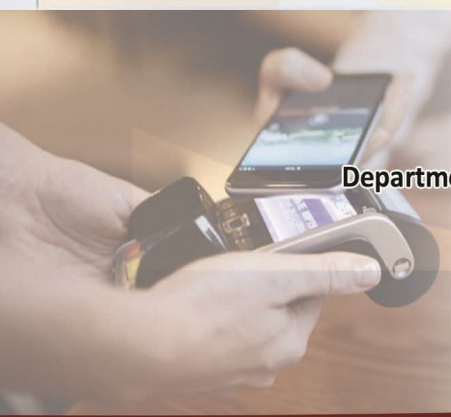
For Details & Registration

https://mangaloreuniversity.ac.in/dpgian/

Email: gian.bhs@gmail.com

Registration Closing Date : 16th July 2018

The participants will be provided an accommodation on payment basis.



COURSE CO-ORDINATOR

Prof. B.H. Shekar

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ONE WEEK GIAN COURSE ON

DIGITAL PAYMENTS: Technology for Cashless Society

23 - 27, July 2018

Venue: Department of Studies and Research in Computer Science,
Mangalore University, Mangalagangothri,
Mangalore 574199, India.

REGISTRATION FORM

Name (in Block letters)			
Designation			
Highest Qualification			
Department			
Institute Name			
Institute Address			
Office Telephone			
Mobile Number			
Email ID			
Accommodation Required? (To be confirmed well in advance)	**Required / Not Required**		
DD Number		**Amount Paid**	**Rs.**
Name of the Bank			
Category of the Participant	**1. UG/PG Student** **2. Research Scholar** **3. Faculty/Administrative Personnel** **4. Freelancer/Industry Participant** **5. International Participant**		

I agree to attend the course for the entire duration.

Signature of the participant

Signature of the sponsoring authority with seal:

Place:

Date:

*Photocopies of this registration forms can also be used.