



सत्यमेव जयते  
Government of India  
Ministry of Human Resource  
Development



# DIGITAL BUSINESS

## THE INNOVATION CHALLENGE OF THE NEXT DECADE

### Overview

As organizations rely increasingly on data to determine and meet customers' needs, changes in data availability and timing influence an organization's ability to create value. Importantly, the emergence of digital data streams generated by the Internet of Things and Internet of People is creating strategic opportunities for existing firms and enabling the creation of new enterprises. Businesses are learning that they need to connect all their assets to the Internet and stream data about their status real time so they are better informed and able to react more rapidly. Creating a digital business that can forge value through digital data streams will be a major challenge for most enterprises over at least the next decade. It will change the way capital in all its forms (natural, economic, human, organizational, social, and symbolic) is created and enhanced. It will contribute to creating a sustainable and resilient society.

Starting with the notion that an organization is a capital creation system, this course will consider various facets related to using digitization to improve the efficiency and effectiveness of capital creation. It is based on the research of the presenter, who has been publishing in this area for more than a decade and is actively involved with CIOs in helping them understand how to become a digital business.

### What's Inside?

- **The capital creation system and digitization**
- **Digitizing the fundamental systems - engagement, framing, inquiry, production, record**
- **Object-oriented organizational design**
- **Digital data streams**
- **Digital twinning**
- **Energy informatics**
- **Multiple case studies of digitization in action**

**Participants will receive a copy of Professor Watson's latest book titled "Capital, Systems, and Objects".**

# Lesson Plan for Digital Business

Many organizations are currently addressing two important transformational issues, ecological sustainability and digitization. This course introduces a flexible model that can be applied to current and future organizational challenges, including sustainability and digitization, because the fundamentals are constant. Capital creation and conversion are what societies have done for thousands of years by applying five basic systems. Leaders will continue to design their organization's future by creating and refining systems for capital conversion.

This course illustrates how digitation is changing capital creation, and you will be able to apply the same principles to understand how future technologies will also change capital creation.

LESSON	TOPIC	
1	A capital idea	The world as a capital creation system and the role of technology in its growth and productivity
2	The organization as a capital creation system	How organizations create capital and the role of digital data streams
3	The growth of capital creation	Key events in the emergence of the capital creation system
4	Systems for creating capital	The five fundamental systems and the impart of digital connectivity on their virtuous interrelationship
5	The implications of the energy revolution	The emergence of renewables as an energy revolution to fuel growth in capital creation
6	Economic capital	
7	Human capital	
8	Organizational capital	The creation of each type of capital from the other six forms illustrated with nearly 40 short cases. Examples of how digitization is changing the capital creation process
9	Natural capital	
10	Social capital	
11	Symbolic capital	
12	Measurement of capital	Measurement of an organization's six types of capital stock and the implications of the shift to human and symbolic capital as key drivers
13	Measurement of systems	Monitoring the systems that create capital to ensure continuous improvement
14	Object-Oriented enterprise design	The principles behind the design of Amazon, Uber, and other digital age organizations
15	Digitization and the future of capital creation	Changes and challenges for the capital creation system and the likely impacts of emerging digital technology developments

## International Expert



Richard Watson is a Regents Professor and the J. Rex Fuqua Distinguished Chair for Internet Strategy in the Terry College of Business at the University of Georgia. He is the current Research Director for the Advanced Practices Council of the Society of Information Management and a former President of the Association for Information Systems. In 2011, he received the Association for Information Systems' LEO award, which is given for exceptional lifetime achievement in Information Systems. As a visiting researcher at Research Institutes of Sweden (RISE) Viktoria, he is engaged in establishing and applying Maritime Informatics to the European shipping industry.

Professor Watson has published over 175 journal articles and written books on electronic commerce, data management, and energy informatics. His work has been accepted by leading academic and practitioner journals and has been translated into several languages. He has made contributions on themes such as Group Support Systems, information service quality, web site quality, U-constructs, frugal IS, energy informatics, dominant logic, digital data streams, and episodic tight coupling. Dr. Watson has given invited presentations to practitioners and academics in more than 30 countries. He was educated at the University of Western Australia (BSc, Dip. Comp), Monash University (MBA), and the University of Minnesota (PhD).

## Host Faculty



Dr. Saji K. Mathew is currently a Professor at the Department of Management Studies, Indian Institute of Technology Madras. His doctoral research and subsequent academic work focused on the role of Information Technology in Business and Management. As a Fulbright Scholar, he did his post-doctoral research on risk mitigation in offshore outsourcing at the Goizueta Business School of Emory University, Atlanta (USA). His present research interests cover information privacy and personalization management, strategies in offshore IT outsourcing, issues in IT infrastructure management services, and data mining. His

articles have been published in reputed international journals.

He has about 10 years of work experience in the area of industrial automation in the Indian industry covering private and public sector companies. He has also provided industrial training and consulting for companies such as Exxon Mobile, Genpact, HP Globalsoft, Oracle India, Primus Retail, L&T and Hindustan Aeronautics Limited in addition to sponsored research projects for Nissan, Hand in Hand, Infosys DSIR and DFID. He teaches courses such as Management Information Systems, Data Warehousing and Data Mining, Information privacy and security, IT Services & Outsourcing, Information Systems Development and Research in IT and Organizations.

## Dates

November 26 - November 30, 2018

## Who can attend

UG & PG Students  
Research Scholars  
Faculty Members  
Practicing Managers  
Scientists

## Maximum Number of Participants

50

## Registration Fees

Student Participants:	INR 1000
Faculty Participants:	INR 2500
Participants from Government Research Organizations:	INR 2500
Industry Participants:	INR 5000

The above fee is towards participation in the course, course materials/handouts, textbook, and any other resources utilized in IIT Madras

## Mode of Payment

Mode1: Online transfer

Account Name: CCE IIT Madras	Acc. No: 36401111110
Branch: SBI, IIT Madras Branch, Chennai	
IFSC Code: SBIN0001055	Swift Code: SBININBB453

Note: The participants should mention the purpose as "GIAN course" during the online transaction and its details have to be sent to [cceoffice@iitm.ac.in](mailto:cceoffice@iitm.ac.in).

OR

Mode2: Demand draft in favour of "CCE IIT Madras" payable at Chennai. The demand draft is to be sent to the course coordinator.

## Accommodation

The participants may be provided with hostel accommodation, depending on availability, on payment basis. Request for hostel accommodation may be submitted through the link:

<http://hosteldine.iitm.ac.in/iitmhostel/>

## Registration Procedure

Please follow the following steps for the registration:

1. Go to GIAN website (<http://www.gian.iitkgp.ac.in/GREGN/index>). First time users need to register and pay a one-time fee of INR 500.
2. Enroll for the course: Digital Business: The Innovation Challenge of the Next Decade. Once you enroll for the course, an Enrollment/Application number will be generated, and the course coordinators will be notified.

## Course Coordinator

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