DATA MINING FOR BUSINESS PROCESSES

GIAN COURSE
IIT JODHPUR

DATES : 11 - 15 DEC 2023
VENUE : IIT JODHPUR
LECTURES : 14 HOURS
LAB/TUTORIALS : 12 HOURS

Faculty: Dr. Renuka Sindhgatta, (Ex) Assistant Professor, Queensland University of Technology, Brisbane, Australia.

She has over 15 years of research experience in the areas of software engineering and business process analytics. Prior to joining QUT, Renuka was a Senior Technical Staff Member at IBM Research where she applied machine learning algorithms on the operational data in various domains such as IT Management, Telecom and Financial services. She has over 15 patents granted or filed. Renuka has over 30+ publications including top conferences such as KDD, CIKM, ASE, OOPSLA, and ICSE. She currently leads the research on using predictive analytics for evaluating outcomes in service based applications. This includes key characteristics of services namely risk, performance, and resourcing. The focus is on not only building accurate models but also infusing trust through interpretable models, including checking for bias, and considering the data lineage.

Who should do the course?

- Corporate professionals engaged in business research
- Executives, engineers, researchers from manufacturing, service and government/private organisations
- Students/Faculties from academic/ technical institutes

Fee Structure

- Participants from abroad: $500
- Industry/Research organisations: INR 10,000/-
- Academic Institutes/Faculties: INR 7,500/-
- Students/Research Scholars: INR 2,500/-

ACCOMMODATION AVAILABLE ON PAYMENT BASIS

ABOUT THE COURSE

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A business process consists of interconnected activities that involve decision points, resources, and artefacts, leading to valuable outcomes for both the service provider and customer. Multiple IT and enterprise systems execute these processes, and the data representing their execution is captured in event logs. Analysing these event logs provides insights into the performance of the business process.

Recent advancements in data mining techniques have allowed for predicting future behaviour or outcomes of business processes, such as predicting completion time or identifying unsatisfactory outcomes. However, applying data mining to event logs requires considerations such as representing activity sequences, distinguishing process and activity information, accounting for human and automated resources, and understanding process outcomes. It is crucial to provide accurate and explainable analysis of business process outcomes, including the reasons behind predictions, to support decision-making.

This course aims to introduce students and professionals to applying data mining to real-world business process execution data. It covers various methods to analyse, preprocess, represent, and utilise data for decision-making. The course also focuses on explainable predictive analytics relevant to predicting business process behaviour.

REGISTRATION PROCESS

All prospective participants need to do web registration for the course on GIAN portal: **https://gian.iitkgp.ac.in/GREGN/index**
After the mandatory web registration, participants should share the registration details with the course coordinator by an email at **sumitk@iitj.ac.in** . The shortlisted participants will be informed by email to register for the course by making full payment of the course registration fee.

Dr. Sumit Kalra,
Assistant Professor,
Department of
Computer Science and
Engineering, IIT Jodhpur

He is working as Assistant Professor since July 2018 at IIT Jodhpur. He did his Ph.D. from IIT Kanpur in 2018 in the Software Architecture. He also worked with industry and corporate research organisations. He is actively involved in a couple of start-ups. He has been granted a US patent and a India Patent along with good research publication record in the domain of design patterns. He is part of various ongoing research and consultancy projects in the domain of Data Analytics as PI and Co-PI.

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