



# Industry Conclave on Business Analytics

Jointly organized by :

- IIM Calcutta
- IIT Kharagpur
- ISI Kolkata

**VENUE: MCHV, INDIAN INSTITUTE OF MANAGEMENT CALCUTTA**

**JANUARY 27, 2015**

IIM Calcutta, IIT Kharagpur, and ISI Kolkata are jointly planning to launch a two year programme in Business Analytics (PGDBA). In order to seek industry inputs on the design of the programme the three institutes are organizing a day long Industry Conclave on Business Analytics on January 27, 2015 at the Management Center for Human Values (MCHV) Seminarium at IIM Calcutta.

The aim of the business analytics industry conclave is to understand the business analytics needs of the industry and to brainstorm about how academia can prepare talent to meet that need. We have invited senior executives and thought leaders from several firms that extensively use business analytics to share their wisdom and insights about the field of business analytics. We hope that through this Conclave, the proposed PGDBA can be designed in accordance with the needs of the industry. Better interaction between industry and the three Institutes is likely to be beneficial for both academia and practice. It promises to improve the awareness of faculty members about the challenges faced by industry in the area of business analytics and the smart solutions adopted by various firms to overcome these obstacles. At the same time it will make industry leaders aware of how talent is groomed at academic institutions. The hope of this Conclave is to create a platform for deep and meaningful interaction between industry and academia in the area of business analytics.

Title	Industry Conclave on Business Analytics
Date	January 27, 2015
Venue	MCHV Seminarium, IIM Calcutta

## PROGRAMME SCHEDULE

09.30 am – 10.00 am	Registration
10.00 am – 10.10 am	Welcome to Participants Prof. Bimal Roy, Director, ISI Kolkata Prof. Partha Pratim Chakraborty, Director, IIT Kharagpur Prof. Saibal Chattopadhyay, Director, IIM Calcutta
10.10 am – 10.15 am	Introducing the Agenda for the Industry Conclave on Business Analytics Prof. Indranil Bose, IIM Calcutta
10.15 am – 10.30 am	<b>Why an Academia-Industry Collaborative Graduate Program in Business Analytics?</b> Prof. Uttam Kumar Sarkar, IIM Calcutta
10.30 am – 11.45 am	Panel Discussion: <b>Business Analytics in 2015: An Industry Perspective</b> Moderator: Prof. Amitava Banerjee, ISI Kolkata Panelists: Mr. Arindam Guha, Deloitte Mr. Jasjeet Singh, Ernst & Young Dr. Kingshuk Banerjee, IBM Mr. Nilanjan Das, Deutsche Bank Mr. Rajarshi Sengupta, Deloitte Dr. Shailesh Kumar, Google Mr. Venkata Arikirevula, Cognizant
11:45 am – 12 noon	Tea Break
12 noon – 1.15 pm	Panel Discussion: <b>Understanding the Talent Needs for Business Analytics</b> Moderator: Prof. Kalyan Guin, IIT Kharagpur Panelists: Mr. Anirban Saha, EXL Mr. Jayanta Adhikary, Tata Consultancy Services Mr. Kajal Ghose, State Bank of India Mr. N. Varadarajan, Ramco Cements Mr. Sameek Roy Choudhuri, HSBC Analytics Mr. Sanjay S. Sharma, Accenture Mr. Somnath De, KPMG
1.15 pm – 2.15 pm	Lunch Break
2.15 pm – 3.00 pm	<b>Grooming Talent in Business Analytics: Role of Academia</b> Faculty members (IIM Calcutta/IIT Kharagpur/ISI Kolkata)
3.00 pm – 4.15 pm	Panel Discussion: <b>Grooming Talent in Business Analytics: Role of Industry</b> Moderator: Prof. Partha Ray, IIM Calcutta Panelists: Mr. Ambarish Dasgupta, KPMG Mr. Darpan Jain, EXL Mr. Ganesh Sankaralingam, Latentview Analytics Mr. Murali Krishna, Microsoft Mr. Rajiv Khemka, Reliance Communications Ms. Ratna Sinha, Tata Metaliks Mr. Shekhar Dasgupta, Green Field Software
4.15 pm – 4.30 pm	Vote of Thanks
4.30 pm – 5.00 pm	Tea

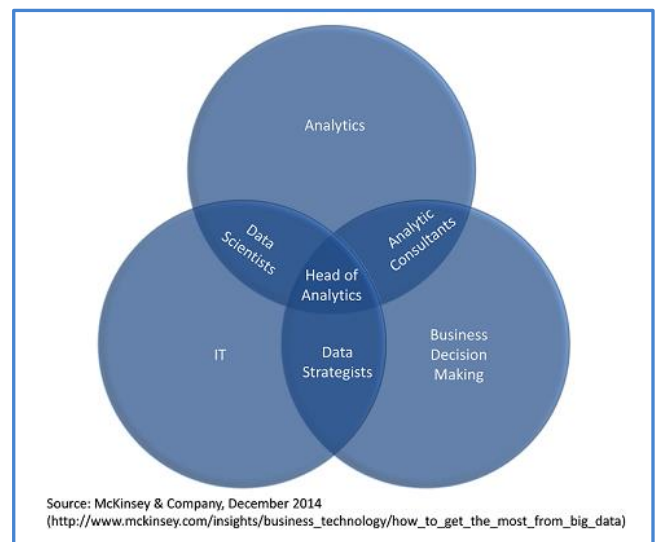
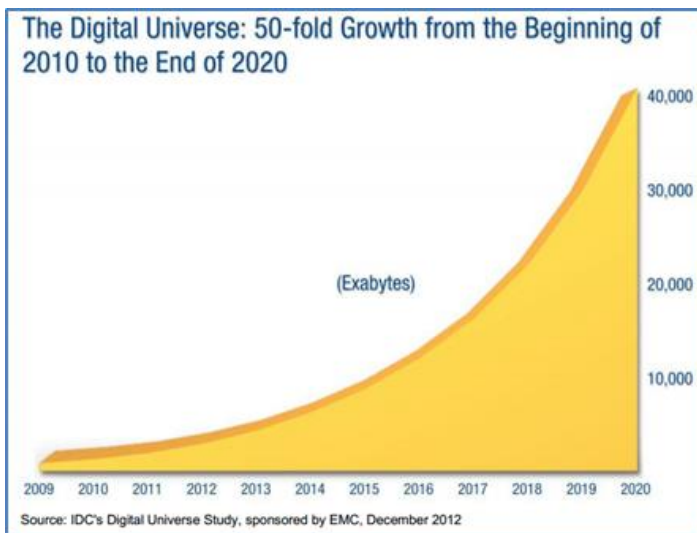
The amount of data being produced and captured is increasing at an exponential rate. International Data Corp. (IDC) forecasts that data production will increase to 40 Zettabytes (or 40 Billion Terabytes) by 2020, 50 times more than in 2010. Data can be used by the businesses to generate hitherto unknown insights, enable better decisions and improve processes. The increasing significance of data in business firms was well outlined by *The Economist* in 2010, where it asserted that data has become a factor of production, at par with labor and capital. Likewise, Thomas Davenport, the author of *Competing On Analytics* argues that data enabled insights can be a potential source of competitive advantage for a firm. A systematic study of data to support business decisions and processes has, therefore, gained significance in recent years and is being referred to as business analytics.

More formally, business analytics refers to the analysis of data using statistical, machine learning and quantitative techniques with the purpose of understanding past performance of the business and generating new insights for future. The term covers a broad spectrum of activities that can affect and improve the organizational processes, including, but not limited to:

- Descriptive statistics
- Data visualization
- Predictive modeling
- Optimization
- Data storage and access

Business analytics is gaining popularity across various industries. According to a forecast made by International Data Corp. (IDC), the global spending on business analytics services is expected to rise from \$51.6 billion in 2014 to \$89.6 billion in 2018. In India, the analytics market is expected to reach \$2.3 billion by 2018, more than double of what it was in 2013, according to a report published by Nasscom and Blueocean Market Intelligence.

Despite the growing significance of business analytics, there is a shortage of trained analytics professionals to fill the various business analytics roles. According to McKinsey Global Institute, by 2018, United States alone would lack about 140,000 to 190,000 workers with deep analytical skills and another 1.5 million managers and analysts who can utilize large data sets to make better decisions. Similarly, in India, there will be a shortage of about 200,000 data scientists over the next few years, according to Srikanth Velamakanni, CEO of Fractal Analytics and a member of the Analytics Special Interest Group set up by Nasscom to support and facilitate the growth of analytics industry in the country.



A recent article from McKinsey's Consumer Marketing Analytics Center suggests that companies need to recruit and cultivate specialists who can analyze, distill and clearly communicate information of the greatest potential value. Further, these individuals should be capable of bridging the IT, analytics and business functions in the organization.

Educational institutions have an important role to bridge this gap between demand and supply of the analytics professionals. Renowned institutes in developed countries including Carnegie Mellon University, Columbia University, New York University, Northwestern University, Rutgers University, Stanford University, Brunel University, and Chinese University of Hong Kong to name a few, have already taken initiatives to develop skilled manpower in business analytics by launching specialized Masters programme in analytics or by including the desired content of analytics under an appropriate specialization in some of their existing programmes. In India, however, there are few specialized courses in business analytics being offered by the educational institutions despite a skill shortage in this field.

## ABOUT THE PROGRAMME

In response to the growing need of trained analytics professionals, Indian Institute of Management Calcutta, Indian Institute of Technology Kharagpur, and Indian Statistical Institute Kolkata are planning to start a joint postgraduate programme in analytics. The programme titled *Post Graduate Diploma in Business Analytics* will be of two years duration. The details of the programme are listed below.

### *Eligibility*

Applicants should have undergone a minimum of four years of education following XII standard in the Indian system. (An international applicant, if any, should have undergone sixteen years of education starting Grade I). Consequently, graduates from any four-year engineering programme (B.Tech / B.E.) and postgraduate students will be eligible to apply. No prior work experience is needed.

A threshold academic performance score in the board examinations and / or a minimum CGPA during the graduation / post graduation may be added as a criterion for eligibility.

### *Admission*

The eligible candidates will be required to appear in CAT, GATE, ISI MCQ for Masters, GMAT or GRE. Based on performance in these tests, applicants will qualify for a written test, which forms the next stage of the selection process. The written test will be designed so as to assess the proficiency and the potential of the aspiring student in analytics related capabilities such as mathematics and statistics, computing and managerial comprehension. Based on the results of the written test, a personal interview will be conducted and the final list of selected candidates prepared.

### *Academics*

The programme will have 600 contact hours, with 200 contact hours taught by each institute where the faculty members of the institute will cover the basic curriculum. In addition, 30 contact hours (10 contact hours for each institute) will be spent with renowned experts in the field of business analytics who will be invited to deliver talks and interact with the students.

Students will visit the three institutions in the order Indian Statistical Institute Calcutta, Indian Institute of Technology Kharagpur, and Indian Institute of Management Calcutta, spending about six months at each institute. Each of the three institutes will focus on a separate area of business analytics, in accordance with its expertise and competence as indicated below.

ISI Kolkata: *Statistical and machine learning theory for analytics*

IIT Kharagpur: *Technology aspects of analytics*

IIM Calcutta: *Application of analytics in functional areas*

In addition, the students will be required to do an internship on analytics related work either in a business organization or an academic / research institution. The internship will be of 5-6 months duration and will be meant to expose the students to a real world analytics problem.

### *Career options*

Students successfully graduating from the programme will be expected to join organizations working in the area of analytics. Those interested in higher studies may pursue doctoral or other advanced studies in areas related to analytics.

## Brief Profile of our Delegates...

*Ambarish Dasgupta*

*Partner and Head of Management Consulting, KPMG*



Mr. Ambarish Dasgupta is Partner and Head of Management Consulting of KPMG India and Regional Managing Partner of KPMG East. He is a member of the India Leadership Team, The Global Consulting Leadership Team and the Advisory Leadership Team of India. He is the Past Chairman of the Kolkata Chapter of American Chamber of Commerce (AMCHAM) and the Eastern Regional Council of National Association of Software and Services Companies (NASSCOM). He is the President Designate of The Bengal Chamber of Commerce and Industry (BCCI); the Academic Council of the Ramakrishna Mission Residential College and sits on the Board of Courses and Studies (BOCS) of the Department of Management Studies, Indian School of Mines, Dhanbad.

*Anirban Saha*

*VP, Training and Product Development, EXL*

Anirban has 12 years of experience in Analytics domain primarily in Banking Analytics across Risk Management and Decision Sciences; he is currently looking after Training & Product Development at EXL Analytics. He has also worked across Insurance and Pharma Analytics. He holds a Bachelors & Masters in Statistics from ISI, Kolkata.

*Arindam Guha*

*Senior Director, Deloitte*



Arindam Guha is a Partner with Deloitte's Consulting practice in India and focuses on public policy analysis and reforms. He has advised various Government of India Ministries, State Governments and development agencies like the World Bank, Asian Development Bank on issues around investment climate and ease of doing business, urban development and making citizen service delivery more effective through effective governance and monitoring. Design and implementation of IT-enabled analytics solutions have featured prominently in many of the initiatives he has been involved in. Arindam holds a B. Tech. (Hons.) from IIT Kharagpur (1991) and a P.G.D.M from IIM Bangalore (1995).

*Darpan Jain*

*VP, Banking Analytics, EXL*



He brings in over 8 years of experience in Banking Analytics across Risk Management, Marketing and information capability development and leads Risk Analytics CoE for a large Global Retail B present role. He holds an MBA from IIMC and is an engineering graduate from IIT Varanashi.

*Ganesh Sankaralingam*

*Director, LatentView Analytics*



Ganesh Sankaralingam is the Head of Delivery (US West Coast) at LatentView Analytics and responsible for strengthening the company's West Coast delivery teams, Big Data practice, Partnership as well as its Innovations Lab. Prior to joining LatentView, Ganesh worked with eBay as part of the global analytics team. Ganesh has a sound understanding of international markets and challenges, having worked across three diverse countries, for over a decade. He has a MS in SCM & Operations Research from Texas A&M and a BE in Mechanical Engineering from College of Engineering, Guindy.

*Jayanta Adhikary**Head, Business Analytics Practice, Tata Consultancy Services*

Jayanta has a B Tech degree in Mechanical Engineering from Institute of Technology, Banaras Hindu University. He has over 25 years of professional experience including over five years in Robotics and Artificial Intelligence in Central Mechanical Engg. Research Institute (CMERI). He currently Heads the Business Analytics Practice in Tata Consultancy Services (TCS). His current area of research and interest is to study changing roles of CFOs after economic downturn and their information needs for smarter decision making.

*Jasjeet Singh**Head of Analytics, Ernst & Young*

Jasjeet is a Director in Advisory Practice at EY specializing in Analytics. He has Bachelors from IIT-Kanpur and MBA from IIM-Ahmedabad. Prior to EY, he was leading the Banking Analytics vertical at EXL, and has holistic analytics experience across - consulting, building CoEs, leading business verticals and crafting analytics strategies for businesses. He's a recognized analytics thought leader with multiple publications across SMAC, Big Data.

*Kajal Ghose**CGM (ESS), State Bank of India*

Shri Kajal Ghose joined the State Bank of India as a probationary officer in the year 1978. Shri Ghose has a career spanning over 34 years during which he has held various important assignments in the Bank, some of which includes Chief General Manager, Lucknow Circle, General Manager (Alternate Channels) & New Business, Corporate Centre, Mumbai. He was also posted as Deputy General Manager Rural Banking Non-Farm sector; DGM ATM (OPS), Mumbai; DGM NCM-1; Circle Development Officer, Guwahati and DGM, Jorhat. In his current role he is driving the Analytics and Social Media of the Bank as well as looking after operational areas of Enterprise Data Warehouse and IT Budgeting and Cost Control of the Bank.

*Kingshuk Banerjee**Executive Director, IBM*

Dr. Kingshuk Banerjee is an Executive Director in Strategy and Analytics practice in IBM GBS. He leads a worldwide pool of 100+ consultants, specialized in Advanced Analytics and Watson. A subject matter expert in Real-time Analytics platforms, Kingshuk has advised multiple international clients on analytics adoption - Rabobank in Netherlands, Bank of Tokyo in Japan and DBS Bank in Singapore. For private bankers at DBS, Kingshuk has designed and implemented a cognitive system for its Wealth Relationship Managers. Kingshuk has spent most of his professional life in the United States of America, where he has worked on big data systems for NASA, and network algorithmics for US Internet backbone. Kingshuk, currently based in Bangalore, loves traveling and reading.

*Murali Krishna**GM, Microsoft IT India*

Murali started his career with Tata Consulting, in 1996. He is a bachelors in engineering, did his EPBM course with IIM-C and had done his Exec MBA with ISB. Currently, leading the Enterprise Commerce Division for Microsoft IT in India, delivering core engineering & operations solutions, creating best overall experience for business partners, product groups & consumers worldwide, enabling \$62B in revenue. Prior to Microsoft, he was with General Electric, where he played various leadership roles including the VP-IT / India Hub Leader and Global CRM Leader for GE Consumer Finance Business, and GE Industrial Systems respectively leading large scale operations and organizations, he was one of the early leaders who played a role in setting up IT for GE in India.

*N Varadarajan**Assistant Vice President - IT, Ramco Cements*

Mr Varadarajan is the Head of IT in Ramco Cements Limited and is a seasoned BI professional of more than three decades of experience. He has implemented many innovative BI projects like Google Map based Executive dashboard, Performance Visualization, Mobile based BI, Real Time Animated Dashboard etc.

*Nilanjan Das**Director of Research, Deutsche Bank*

Nilanjan is Director of Research and EMEA desks of Deutsche Asset & Wealth Management, based in Mumbai. He had previously set up the Credit Suisse Research Center of Excellence in Mumbai, and prior to that worked for a start-up and with J.P.Morgan in offshore investment research and analytics. Nilanjan is alumnus of IIM Bangalore and IIT Kharagpur.

*Rajarshi Sengupta**Senior Director, Deloitte*

Rajarshi is a Senior Director in Deloitte Touche Tohmatsu India Ltd. He leads the Technology Integration practice of the firm in India and is a member of the Consulting Leadership team for Deloitte in India. Prior to Deloitte, Rajarshi was an Executive Director in the Advisory Services of another Big 4 firm in India and was an elected member of the Board of the firm. During his 22+ years in Technology Consulting across US, UK, India, Middle East and South East Asia, Rajarshi had led over 250+ assignments in Technology Strategy, Analytics and Information Management.

*Rajiv Khemka,**VP, Network Planning, Reliance Communications*

Rajiv, Vice President - Network Planning at Reliance Communications has interests in the convergence domain of mobile/VAS data applications and IT services. Prior to Reliance he has worked for a leading global KPO, been a cofounder entrepreneur in a management and IT strategy consultancy and has worked in the IT industry. An alumnus of Indian Institute of Technology, Kharagpur, he is a member of IEEE and TIE Mumbai and lives in Navi Mumbai.

*Ratna Sinha**Head of HR, Tata Metaliks*

Ms. Ratna Sinha has joined Tata Metaliks Limited as Chief – HRM on 1<sup>st</sup> July, 14. Prior to this Ms Sinha was at Tata Steel, Jamshedpur as Head – Management Development before taking a transfer to Kolkata. She has worked in varied sectors such as service, financial, engineering, FMCG and heavy machinery industry. Ms. Sinha is also the Ethics Counselor and Chair- person of Women Empowerment as well as Internal Complaint Committee. She is associated with various professional and voluntary associations too.

*Sameek Roychoudhuri**HSBC Analytics*

Sameek has been part of the analytics industry for almost 12 years. He has worked extensively in areas of business analytics, analytics consulting, regulatory and risk analytics, policy and model governance. He has also been guest speakers on quantitative methods at different management institutes. Currently, he is leading the wholesale credit and market risk model development Team at HSBC Analytics Business Service in India. Sameek is an MStat from the Indian Statistical Institute.

*Sanjay S. Sharma*  
*MD, Accenture Digital*



Sanjay is a Managing Director in Accenture Digital and leads Marketing Analytics Capability & Global delivery Centre for marketing analytics in India. He has 18+ Years of experience in Marketing Analytics across multiple domains, industries and geographies. In the past decade Sanjay has worked with various Accenture practices in the US, India, APAC and UK. Sanjay has considerable experience in Marketing strategy, Marketing Mix & spend allocation, market research, Demand Forecasting, Customer analytics and pricing & promotions. Sanjay holds Post Graduation in Economics and a Post-Graduation in Business Management, major in Finance.

*Shailesh Kumar*  
*Technical Staff, Google*



Dr. Shailesh Kumar is a Member of Technical Staff at Google, Hyderabad where he works on Machine Learning, Information Retrieval, Data Mining, and Computer Vision problems for various Google products. Dr. Kumar has over fifteen years of experience in applying and innovating machine learning, statistical pattern recognition, and data mining algorithms to hard prediction problems. Dr. Kumar received his PhD in Computer Engineering in 2000 and Masters in Computer Science in 1997, both from the University of Texas at Austin, USA. He received his B.Tech. in Computer Science and Engineering from the Institute of Technology, Banaras Hindu University in 1995.

*Shekhar Dasgupta*  
*Founder and CEO, GreenField Software*



Shekhar, an IT industry veteran of 30 years, bootstrapped GreenField Software. Prior to starting GFS, he was President of a Silicon Valley start-up in area of Information Lifecycle Management. Earlier, Shekhar worked for over 12 years at Oracle India, and was its Managing Director from 1998 to 2005. Shekhar published many articles on Technology and speaks at various industry seminars in India and overseas. Shekhar graduated with Economics Honors from Presidency College and completed PGDM from IIM Bangalore.

*Somnath De*  
*Technical Director, KPMG*



Mr. Somnath De is a Technical Director of KPMG. With over 15 years of extensive consulting experience in the technology domain and program management, Somnath heads telecom analytics practice for KPMG India. His major projects are related to utility services, financial services, and telecom. He is a certified scrum master as well as a certified scrum developer. For utility sectors like CESC, Somnath has developed analytics solutions in repetitive customer calls, CAPEX planning, pilferage analytics. Somnath has extensively worked with companies like Virtusa, Altus, Grameenphone, Godfrey Phillips, Graphite India etc.

*Venkata Arikirevula,*  
*Vice President, CSO, Enterprise Application Services, Cognizant Technology Solutions*



Venkata has 26+ yrs of IT Industry experience including 19+ years working in the SAP ecosystem across different Industries. Currently Head of EAS Business Consulting & Head of Strategy Office for Enterprise Application Solutions Practice in Cognizant and responsible to drive the Strategic and Large Transformational Multi-tower deals, Analyst Relationship, Strategic Market Research group and EAS Analytics group.