



OPJU

UNIVERSITY OF STEEL TECHNOLOGY
AND MANAGEMENT



**Creating
a new
benchmark
in training &
development**



**CENTER FOR CORPORATE
EDUCATION & TRAINING
(CCET)**

OP Jindal Group

OP Jindal Group has emerged as one of India's most dynamic business groups employing 50,000 people with manufacturing facilities across US, UK, India, Middle East, Indonesia and Australia. The group's motto has been 'growth with a social conscience'. At the heart of the group strategy is its commitment to sustainable development.

JSP is a leading Indian Infrastructure Conglomerate with a presence in the Steel, Power, and Mining sectors. With an investment of approximately 12 billion USD (90,000 Crore Rupees) across the globe, the Company is continuously scaling its capacity utilization and efficiencies to contribute towards building a self-reliant India.

OP Jindal University has been established under the aegis of the Jindal Education and Welfare Society. Other higher education initiatives of the society include OP Jindal Global University, OP Jindal Community College and Jindal Institute of Power Technology.

The close proximity of the Group's operations provide the students of the Schools of Engineering, Management & Science with unique access to real-life projects and mentorship of senior professionals from industry.

Pursuit of knowledge through first-hand experience is the cornerstone of OP Jindal University. We aim to build an institution where students learn by doing, where real world challenges find practical solutions and innovation happens not by chance, but by design. It is an attempt to make world class education accessible to deserving students both in metros and in smaller towns of India. Through its modern infrastructure, multi-disciplinary programmes and enriching campus life, the university will create the best leaders not only for India but also for the world.

Naveen Jindal

Chairman, Jindal Steel and Power



Our university recognizes innate potential of students and provides them with a nurturing and stimulating environment for their training and holistic development.

Ms. Shallu Jindal

Chancellor, OP Jindal University



OP Jindal University

Founded by the Jindal Education and Welfare Society, OP Jindal University (OPJU) aims to develop young professionals and future leaders who will not only power growth and development in the state, but also make a mark globally.

At the core of the university's philosophy and approach lies the belief that students learn best when exposed to real world situations and enriching interactions with practitioners and professors.

We at OPJU believe that every student has innate potential that can be unlocked through quality teaching and mentorship.

“ OPJU strives to be a recognized institution in the field of professional education around the world and also taken care of the Indian context in designing our curriculum.

”

Dr. R. D. Patidar
Vice-Chancellor, OP Jindal University



विद्यि परिप्रश्नेन

*to gain knowledge and
understanding by appreciative enquiry*



About CCET

The Centre for Corporate Education and Training (CCET) at OPJU is a unique initiative of the university to ensure corporate excellence at the workplace. It aims to blend the education systems with corporate expertise and dedicated training insight, so that the employees of the corporate sector can be groomed and updated as per the current need of the industry.

The country sincerely needs skilled employees, managers, and leaders in the industries. The CCET has been created with the sole purpose of developing skills and knowledge in the service and corporate levels. The CCET understands business and is equipped with the right resources, knowledge of skills and tools required to train executives to face challenges and meet opportunities at the workplace across various sectors like Steel, Power, Mining, Manufacturing, Telecom, Logistics, and Services Industries.

The CCET is an autonomous center of OPJU. Its programs provide essential skill sets that promote corporate competitiveness while, at the same time, helping to fill available employment niches with highly qualified workers.

Apart from up-to-date self-learning study materials and designing industry linked curriculum the center also carries out scientific evaluation as well as takes multimedia approaches in diverse flexible trans-disciplinary systems of corporate education delivery.

Mission

The mission of CCET is to provide best quality and result oriented education and training solutions to the corporate in a cost-effective manner to enhance the working performance of the employees.

CCET Training Areas

- ▶ Technical Training
- ▶ Management Training
- ▶ Soft Skill Training
- ▶ Productivity Enhancement Training
- ▶ Competency Development Training
- ▶ Induction Program for GET's

What We Do?

To ensure corporate excellence at work place, CCET has the following objectives:

a. Customized Curriculum Design and Executive Development

- ✓ Future-oriented industry-based programs and practices
- ✓ Employees friendly study material
- ✓ Emphasis on live industrial problems and case studies
- ✓ Regular lectures and mentoring by industry practitioners
- ✓ The adequate amalgamation of liberal arts and soft skills
- ✓ Summative evaluation
- ✓ Multimedia learning technologies
- ✓ Flexible / Distributed learning systems
- ✓ Effective learning programmes
- ✓ Diverse nature of programmes
- ✓ Opportunities for internship



b. Management Development

- ✓ Leadership skill Development Programmes
- ✓ Change Management Programmes
- ✓ Team Building Programmes
- ✓ Time & Stress management programmes

c. Induction Program: New Employees or New Roles

- ✓ Campus to Corporate
- ✓ Positive Thinking and Team work
- ✓ Adaptability and Change management
- ✓ Communicating effectively
- ✓ Personal SWOT and Goal Setting

d. Competency Development Program: Career advancement or Promotion

- ✓ Creativity & Problem solving Skill
- ✓ Verbal and Non- verbal Skill
- ✓ Communication Skill
- ✓ Analytical & Numerical Skill

e. Industry-Institution Collaboration

- ✓ Forum for experience and best practices sharing
- ✓ MDPs for the industry
- ✓ Curriculum development
- ✓ Internships for students
- ✓ Resources sharing
- ✓ Project consultancies
- ✓ Organizing events and activities

f. Research Activities

- ✓ Industry-based contemporary research
- ✓ Institution faculty-industrial expertise exchange
- ✓ Guest lectures, seminars & workshops
- ✓ Academic partnership

How We Do?

Centre for Corporate Education and training create a pool of well trained and capable employees at all levels by providing right knowledge, skills, and abilities to trained the employees of the industry. We follow a constant process improvement, having four stages and feedback being the constant activity at every stage.

a) Training Need Analysis

Identify what areas of knowledge or behaviors that training needs to accomplish. Carry out initial information gathering on overall capacity and to identify the potential barriers to training effectiveness, before moving on to specifying the training needs.

b) Method/Process Development

Based on SMART pattern, establish learning objectives in conjunction with the client before moving on to training design.

c) Delivery

Based on type of training programmes, we deliver quality service in classroom mode both at Institute and Client site and on-line mode.

d) Evaluation

We regularly monitor to improve the standards of programme based on summative assessment from the employee.



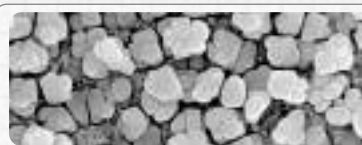
Technical Training Topic & Content



Importance of Metallurgy in Steel Industry

Duration: (10 days)

- Challenges and Opportunities in Iron and steel sector, Basics of thermodynamics and kinetics, Phase Transformations, Basic concept of Mineral Dressing, Physical metallurgy of steel, Basics of Heat treatment, Raw materials for iron making and its properties, Alloy design and its attributes, Computational tools for alloy design, Metallurgy of Rail Steels.
- Iron ore pelletisation- principle and benefits, Iron ore sintering - principle and benefits, Coke making and overview of coke, Construction, Working principle and kinetics of blast furnace, Production of Ferro alloys, BOF Process of Steel Making.
- Study of Iron making through Alternative routes (Rotary Kiln), Basics of Corrosion behaviour of steel and its control, EAF process of Steel Making, Secondary steel making process, Degassing Techniques, Transport phenomena concepts in steel making.
- Basics of metal joining of steel, Production of Iron and Steel Castings, Details of Hot and Cold Rolling, Material Characterization, Quality and specification of steel grades, Overview of power plant.



Metallography and Material Characterization

Duration: (2 day)

Metallography procedures, Sample cutting, cleaning and polishing, Polishing papers and cloths, Material Characterization Tools, Microstructural characterization, Mechanical Characterization, Chemical Characterization, Physical Characterization, Quality and Inspection.



Metallurgy for Non-Metallurgists

Duration: (1 day)

Metals and Non-Metals, Extraction process, Processing of metals, Converting metals to alloys, Solidification and casting of alloys, Corrosion in alloys, Heat treatment of alloys, Material characterization tools, Quality and Inspection.



Corrosion Control and Prevention

Duration: (1 day)

Corrosion and Society: Its economic, social and environmental impacts, Basic Concepts in Corrosion, Driving Force for Corrosion, Kinetics: The Rate of Corrosion, Different Forms of Corrosion, Corrosion in Specific Environments, Methods for Control and Prevention, Corrosion Testing and Monitoring.



Mechanical Maintenance for Electrical Engineer

Duration: (1 day)

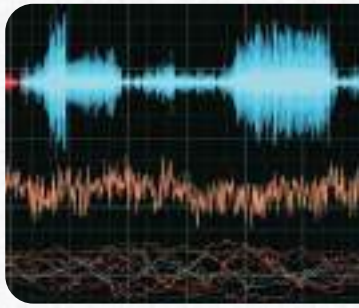
- Tightening: Methods, Sequence of tightening, recommended tightening torque values.
- Lubrication: Select the right lubricant, The right lubrication method and amount, Terminology, Properties, Test procedures.
- Alignment Theory and Practice: shaft alignment, Types of couplings, Types & Signs of misalignment, Measuring misalignment, Pre-alignment steps, Soft foot, Usage of shims, Alignment of shafts.
- Bearings– Theory, Practice and Maintenance: Types, selection, nomenclature and terminology, Types and techniques used for Mounting and dismounting of bearings, Industrial practices for Bearing Care, Safety during bearing mounting, Do's and Don'ts of bearing usage and handling, Lubrication of bearings
- Fault Finding: Principles of diagnosing mechanical faults, Identify the types of deterioration in plant machinery, Use condition monitoring techniques to diagnose and predict operation failure, Perform pro-active maintenance to improve plant productivity, Equipments used for Condition Monitoring such as Vibration Measurement Device, Stroboscope, Industrial stethoscope, Laser thermometer, Thermal Camera.



Hydraulic & Pneumatic systems – Theory, Practice and Trouble-shooting

Duration: (2 days)

- Fundamentals, system accessories, Hydraulic pumps basics, Pneumatic system, Pressure control: relief, reducing, regulating valves, Flow control: FCV, non-return valves, Actuators: Linear actuators, hydraulic motors, Hydraulic drives.
- Direction control valves: Direct operated, pilot operated, Performance evaluation and testing of Hydraulic pumps, Relief & DC valves, solenoid valves, proportional valves and servo valves, electro-hydraulic/pneumatic circuits, Safe operation, maintenance and troubleshoot.



Vibration, Noise and Thermography

Duration: (2 days)

- Vibration: Fundamentals, Common Fault Patterns (Imbalance, Looseness, Gearbox, Bearing, etc.), various vibration severity chart, Relating Spectral Information to Faults, Analysis of Best Practices, vibration control techniques.
- Noise: Equivalent Sound Pressure Level, Un-weighted and A/C-weighted Sound Pressure, Sound Intensity and Power Measurements, Noise Monitoring Standards and Alarm Limits, Analysis of Best Practices, Noise control techniques.
- Thermography: Thermal imaging: Equipments and Instrumentation, Testing Techniques, basic fault detection, severity assessment, and diagnosis in accordance with established, instructions, Infrared Image and Documentation, Application in power plants and steel plant applications.



Power Plant Familiarization

Duration: (1 day)

- Energy Scenario, CPP/IPP, Process and Cycle, Flow diagram .
- Major equipment's their specification/capacity,
- Water, coal and ash treatment, Boiler-PF/CFBC/AFBC/WHRB.
- Turbine, Condensor, Cooling Tower, Generator,
- Power plant accessories-Fan (PA,FD, ID), BFP, ESP, Maintenance, Challenges in Plant



Overview of Pump and Fan

Duration: (1 day)

- Physical principles of a centrifugal pump/Fan
- Pump/Fan systems
- Pump/Fan types, operation
- Main components, Testing
- Condition monitoring



Instrumentation & Control for Power Plant

Duration: (2 day)

- Power Station Instruments: Pressur, Level and Flow Measuring Instruments
- Turbovisory Instruments: Shaft eccentricity, vibration, differential expansion of shaft and cylinder, speed and axial shift.
- Analytical instruments, Combustion quality measurement
- Introduction to control Engg: open loop, feedback control, closed loop, gain, Proportional, derivative, integral control, choosing the controller, interlocks. Boiler Control, Turbine control, final steam pressure control, combustion control, furnace pressure control, mill control, superheater steam temperature control, feed water control, integrated unit control, Automatic control of HP, LP, by pass station.



Basic Automation & Drives

Duration: (1 day to 2 day)

- Basics of Signals, Components of Automation, Communication Protocols, Introduction to PLC & DCS, PLC programming concepts, Introduction to HMI & SCADA.
- Introduction to Electric Motor Drives & its dynamics, Speed Torque characteristics, Selection of a drive for different types of loads, DC motor drive, AC motor drive, Duty cycle, 4-quadrant operation of drive.



Basic Electrical & Switch Gears

Duration: (1 day to 2 day)

- Power, Energy, Circuit Elements, Types of Circuits, DC, AC, Magnetic Circuit, RLC Circuit, Power Factor, its advantage & disadvantage, Line Voltage/Current, Phase Voltage/ Current, Voltage level in generation, Transmission & Utilization.
- Substation Equipment – Transformer, CT, PT, Circuit Breakers, Isolators, Earthing Switch, Lightning Arrestor, Grounding/Earthing.



Error Free Production & Waste Reduction Management

Duration: (1 day)

- Production and Waste Management, waste reduction tools such as Lean management through cost perspective, Kaizen, Kaizen and People, Kaizen and Innovation. Case study on waste management, practical challenges, How does waste affect the cost of production?, Sensitivity analysis of various constraint for the error free production.
- Kaizen Tools such as PDCA, 5S, 7 wastes, 7 old and new quality dimensions, 5 Whys; Value stream mapping, Visual control and workstation.
- Way of Discussion: Practical implementation of various tools, uncertain data of analysis for various workstation, use of EXCEL for data analysis.



Total Quality Management

Duration: (1 to 2 day)

- Concept of TQM
- Vision, Mission, objective of organization and role of quality
- How quality benefits business
- Quality planning, designing, waste control, Quality and competitiveness in business
- Role of leadership in quality development, Japanese approaches of TQM
- The basic principles of customer orientation and quality
- The quality culture



Quality and Cost Effectiveness

Duration: (1 day)

- Introduction: Quality, Total quality, Total quality management, Quality perspective with reduced cost, Statistical quality control; Case discussion on quality analysis, How can variability be minimized through quality analysis. cost minimization techniques through LPP model with quality constraint.
- Control charts for variables and attributes, Process control and capability, Implementation of Taguchi Method of parameter optimization of finding valuable factors, practical challenges of parameter design with quality attributes, How the various tools can be implemented practically?, How can we use EXCEL for data analysis?



SWOT Analysis in Production/Project Conceptualization/Development of Project

Duration: (1 day)

Basics of SWOT, Discussion of SWOT for project identification and screening purpose, How to implement SWOT for product development. Case discussion on SWOT analysis, How can implement for project selection and identification, Discuss the Analytic Hierarchy Process (AHP) for SWOT for product development.



Quality Assurance of Civil Engineering Materials

Duration: (3 days)

Principle quality and standard as per specification, Details of specification, Various testing procedures, Selection of materials for project, Identification of inferior quality materials, monitoring construction procedures, Corrective actions, Reporting and documentation.



Basic Computer Skills/Microsoft Office

Duration: (2 days)

- Components of a computer system: Explore Windows Accessories, Customize the Desktop and start menu
- Word Processing Skills: Create and edit Word documents, Format and enhance Word documents.
- Internet Skills: Internet browser features, Use Search tools, Understand Internet Ethics.
- Communication Skills: basic navigation, email, calendar and course tools.
- Spreadsheet Skills: Format and enhance spreadsheets, create basic formulas & basic charts.
- Database Skills: Format and enhance a database, Create Queries, Sort and filter a database, Create and print Reports.
- Presentation Skills: Create and edit basic PowerPoint presentations, Use template, color schemes, animation, slide transition, Insert images including digital pictures.

Management Training Topic & Content



Concept of Project Management

Duration: (1-2 day)

- Fundamental Elements, Environment in which project operates
- The Role of Project Manager, Project Integration Management
- Project Scope Management, Schedule Management, Cost Management
- Quality Management, Resource Management, Communication Management
- Risk Management, Procurement Management, Project Stakeholder Management



Presentation Skills

Duration: (1 day)

- Ice breaking, Setting Your Objectives, Knowing Audience, Focus, Plan, and Convey, Audience Profile
- Building the Structure, Designing & Planning for Timelines, Using Visuals and animation.
- Body Language & Voice Control: First Impressions, Non Verbal Factors of Communication, Factors Affecting the Voice, Using Your Voice, Presentation Preparation.
- Delivery-Communication & Controlling Nerves: The Three Parts of Communication, Overcoming Your Fears, Thinking Positive, Being Realistic, Taking Control, Sticky Situations, Paying Attention to Your Appearance: Tips to Combat Nerves Nervousness Presentation, Presentation Delivery, Presentation Evaluation



Business Etiquette

Duration: (1 day to 2 day)

- Business communication, Barriers to communications
- Building a professional image, Personality as a tool of business communication
- How to make positive perception, Attitude for managers
- Finding the Leader inside you, Group building, Interpersonal skills
- Understanding Body language, Understanding workplace diversity
- Overcoming Challenges, Understanding Globalization and Workplace politics



Theory of Constraint

Duration: (1 day)

- Basic Principles of TOC, Basics Processes of TOC, Types of Constraints.
- The Five Focusing Steps of Managing Constraints.
- TOC Thinking Processes, Purpose and Tools, Integrated Solutions (Drum-Buffer-Rope Management, Market Demand Pull (Replenishment)
- Performance Measurements – Throughput, Inventory and Operating Costs



Design Thinking and Creative Problem

Duration: (1 day)

- Implementing design thinking processes and tools to drive innovation
- Transitioning through the phases of inspiration, ideation, and implementation
- Using tools like visualization, mapping, and storytelling to create solutions
- Testing, refining, and improving new ideas, business models, and processes



Lean Management

Duration: (1 day)

The History of Lean and The Significance of The Eight Wastes, The Two Pillars of the Toyota Way, The 4P Model of the Toyota Way, The Five Lean Principles, The Toyota Production System (TPS), Lean Tools Customized for Design and Construction, The Last Planner System (LPS), Emotional Intelligence (EI).



Negotiation Skills

Duration: (1 day)

Nature of Negotiation, Bargaining Vs Negotiation, Negotiation Strategy and Planning, Finding and Using Negotiation Power, Influence, Personal Power in Negotiation, Managing Negotiation Impasses, Mismatches and Difficult Negotiations, Importance of Communication in Negotiations, Best Practices in Negotiations.



Marketing Skills

Duration: (1 day)

- Know your stuff ... , Nature of sales and marketing, Sales Vs Marketing, Sales and Marketing Strategy, The Sales Process and your role, Finding and Using Marketing Power within You, The power of effective communication, Do's and Don'ts.
- Know the customer, Creative Thinking, Design Thinking, 22 Immutable Laws of Marketing, Sins of Marketing.



Competency Development Program

Duration: (1 day to 2 day)

- Ice-breaking Self-image, Attitude & Success Behaviour
- Organisational Learning, Employee Loyalty, Ownership & Commitment, and Customer Service Discipline, Team Work and Conflict Resolution,
- Understanding Critical Thinking, Developing Your Critical Thinking Skills Critical Thinking Process, Critical Thinking Models, Standards of Critical Thinking, Identifying the Issues and Arguments, Checking Credibility and Consistency, Evaluating Arguments, Critical Thinker's Skills Set: Asking Questions, Probing, Critical Thinking Questions, Active Listening Skills.
- The Six-Step Problem Solving Process: Define and Analyze the Problem, Determine the Cause(s) of the Problem, Goal Analysis, Generate Alternative Solutions, Select the Solution, make a Decision, implement the Solution
- Professionalism, Workplace Ethics, Safety and Compliance.



Finance for Non-Finance Executives

Duration: (1 day)

- Understanding corporate financial statements: • Balance sheet • P&L account.
- Analyzing and Interpreting corporate financial statements: Basic analytical tools including ratio analysis.
- Using Cost Information for decision making: • Cost-Volume-Profit Analysis • Budgeting.
- Working capital management and decision making: • Inventory, Recording and Reporting, Cost of Goods Sold, Inventory Costing Methods (LIFO, FIFO, Moving Averages), LCM Rules.



Supply Chain Management

Duration: (1 day)

- Customer fulfilment & collaboration, Digital supply chain operation & technology solutions. Supply chain logistics management and headship management, supply chain planning and optimization.
- Plan, Source, Make. Delivery and return which defies : Right product, Quality in good condition, right place & right time, customer with right price.
- Supply chain control tower - order management, Inventory management, Electronic data interchange and supply chain analysis.



Welding Technology

Duration: (1-6 days)

- Fundamentals and Hands-on Practice: Introduction to Advanced Welding Technology, TIG, MIG, Stick, etc. Welding Materials, Welding Symbols.
- Welding Inspection and Quality Control.
- Advanced Techniques, Welding Simulator, and Robotic Welding, Advanced welding joint designs and techniques. Practice on SMAW, GMAW and GTAW plate to plate in 1F, 2F, 3F, 4F, 1G, 2G, 3G and 4G positions.
- Troubleshooting and Maintenance of Welding Equipment.



Campus to Corporate

Duration: (1-2 day)

Goal Setting and Time Management, Confidence Building, Communication Skills & body language, Effective Presentation Skills, Interpersonal & Team Skills, Corporate Etiquettes, Effective Negotiation Skills, Activities & Practice.



Leadership Skills and Time Management

Duration: (1-2 day)

Leaders as a Source of Competitive Advantage, Leadership Styles, Effective Leaders Vs Managers, Identifying Leadership Skills, The dynamics of decision making, Leading a team to increase productivity of the workforce, Understanding Time, Shift Focus from Managing Time to Managing Self, Setting Goals, Planning and Scheduling, Prioritizing, Time Stealers, Getting Organized, and Building an Action Plan for Change.



Team Work

Duration: (1 day)

- Work Teams, when to use teams, Stages of Team Development, Kinds of Teams, Team Autonomy continuum, Special Kinds of Teams, Managing work teams, Work team characteristics, Enhancing work team effectiveness, Team player inventory exercises
- TRUST framework, Effective Team Management, Team decision-making tools, Team Building Exercises, Shaping team behaviour, Team Effectiveness - Getting more from your Team, Team Leadership – Building high performance teams.



Emotional Intelligence

Duration: (1 day)

- Emotional Intelligence Test, Emotions, Emotional Quotient, Does Emotional Intelligence Matter More
- Than IQ? Can Emotional Intelligence and Success Be Related?, EI Competencies for personal & professional Effectiveness, Enhancing Emotional Quotient



Positive Attitude

Duration: (1 day)

- Challenges of winning work attitudes and Positive organizational behaviors (what are attitudes, types of attitudes, effects of positive attitudes), Using a positive mental attitude to get what you want (the importance of positive attitude, being a winner, dynamics of success), Transforming negative attitudes, Knowing the difference between controllable and uncontrollable, Working towards a positive thought process
- The art of reframing, Ingredients of Successful relationships – others and your attitude
- Paradigm of human interactions, The mantra of creating win-win relationships.



Self-Management

Duration: (1 day)

- Cleaning up: What keeps me from productive work and how can I clean up? · Time and self-management tools : How can I organize myself?
- Work-Life Balance: what is my balance and how can I reach it? · Principles and Motives: What drives me? · How can I be effective and efficient?
- Dreams and Goals – What are my personal and professional goals? · Goal definition – how can I define my goals and categorize them? · Happiness – can it be achieved?
- Principles and motives – what drives me? · Self-motivation – how can I motivate myself? · Having fun with unpleasant tasks



Communication Skills

Duration: (1 day to 2 day)

- Listening with purpose, Listening for Understanding, Dynamics of Communication, Interpreting nonverbal cues, Achieving Genuine Communication, Building Confidence, and Practicing Effective Communication.
- Speaking Skill: Speaking- An Overview, Art of Persuasion, Combating Stage Fright, Delivering Just-a-minute Sessions, Effective speaking and Public Speaking.
- Non-Verbal Communication: Secrets of Body Language.
- Professional Presentations- Planning of a Presentation, Designing of a Presentation, Individual and Group Presentations, Making Presentation.



Basic English Language (Speaking & Writing)

Duration: (2 day)

- Basics of Communication in English- Listening and Speaking: Introduction to Communication elements and sounds, Listening Skills, JAM, Vocabulary.
- Grammar in Use: Verbs , Articles, Preposition, Tense & Punctuation.
- Oral Communication, Interpersonal Communication: Introducing, Greeting, Role play, Speech, Real life situation communication.
- Written Communication in English: Basics of writing, Sentence Structure, Subject-verb concord.
- Paragraph Writing: Narrative, Descriptive.
- Official Correspondence: Letter, Email, Report.



Conflict Management & Interpersonal Skill

Duration: (1 day)

- Understanding Conflicts: Paradigm, Paradigm Shift, How am I creating Conflict.
- Conflict blind spots: Collusion, How to recover true vision.
- The Solution: Resolving heart of conflict, How can I make things go right?
- Interpersonal Skills: Awareness (of yourself and others), Empathy for others, Nonverbal cues and body language, Constructive feedback, Being good at team building and at building trust.



Six-Sigma Approach for Quality Improvement

Duration: (3 day to 5 day)

- Overview of Six Sigma Methodology.
- Roles and responsibilities in Six Sigma implementation.
- Identification of Critical To Customer.
- Overview of Six Sigma Project execution.
- Development of Project Team and Charter.
- Types of Data and Statistical distributions.
- Identification of Value-Added and Non-Value-Added activities.
- Stratification methods.



Train the Trainer

Duration: (1 day)

- Introduction: Learning Development Process, Workshop Objectives, Agenda, Opening a Training Session
- Design: Conducting a Needs Assessment Goals & Objectives Evaluation Strategies Writing a Training Proposal.
- Development: Kolb Learning Styles Sequencing Learning Activities Organizing a Presentation Effective Visual Aids.
- Delivery: Delivery Skills Reminders Interaction Skills Group Process Cultural Factors Resistance & "Difficult Learners" Facilitation Skills Energizers Closing a Training Session.



CSR Training

Duration: (1 day)

- Definition of the Term CSR, CSR in Companies Act 2013, CSR Rules in India, CSR Committee and Policy.
- Activities under CSR, Government schemes, Local Area, Need Assessment Survey.
- what is a needs assessment survey? why should you do a needs assessment survey? when should you do a needs assessment survey? How do you carry out a need's assessment survey?
- FGD and Ethnography, Evaluation and Assessment, Impact Assessment and Reporting, Key Features of FGDs, Skills Required to Conduct FGDs, Major Steps involved in FGDs, Ethnography, Philanthropy and Charity, The Impact and Assessment of CSR activities, Why Is IMPACT Relevant to Business and Stakeholders?, Top companies in India for CSR in 2020.



Occupational Health and Environmental Safety Management

Duration: (1 day)

- Understanding the Concept of Occupational Health & It's Scope.
- Medical surveillance for control of occupational diseases and health records.
- Monitoring for Safety, Health and Environment, Industrial Hygiene, Industrial noise, air pollutants in industries, fire, Chemical Hazard, Occupational Health and Environmental
- Safety Education. Practical Aspects. Bureau of Indian standards on safety and health 14489 - 1998 and 15001 – 2000, OSHA, Process Safety Management.
- Industrial safety, Role and responsibilities of safety officer.



Behavior based safety (BBS)

Duration: (1 day)

- BBS Improvement a 7-step process
- Ways to implement a Behaviour Based Safety Program
- Behavior based safety checklist & Benefits of a Behaviour based safety program
- Elements of a world- class BBS program
- Mistakes in implementing BBS
- Digitize and improve your behaviour-based safety through Safety software
- Behaviour Based Safety – FAQs



Prevention of Sexual Harassment (POSH)

Duration: (1 day)

- Introduction, Overview & Scope : POSH Act, Core Purpose : Prevention : Protection Redressal, Case Study: Bhanwari Devi.
- Important Terminologies as per POSH Act, Sexual Harassment - as defined by law, Types of Sexual Harassment - Hostile Environment & Quid pro Quo, who is an 'Aggrieved' Woman?
- Sexual Harassment at Workplace, Welcome & Unwelcome Behavior, Personal & Professional Impact, Eye Opening Examples, Consensual Relationships.
- Case Studies & Scenarios
- Redressal Mechanism, Rights of Complainant, Rights of Respondent, how to raise a complaint, who can raise a complaint? Prevention & Protection as per company's policies, Role of ICC.



Mental Wellbeing and Happiness

Duration: (1 day)

- Introduction: Understanding Mental Wellbeing
- Strategies for Enhancing Mental Wellbeing and Cultivating Happiness
- Creating Supportive Environments by Cultivating Happiness and Positive Emotions.
- Practical Applications and Exercises: Mindfulness and Meditation.



The ONE Thing

Duration: (1 day)

- The Domino effect, The Lies: Everything Matters Equally Multitasking. A Disciplined Life Will power is always on Will-call. A balanced life, Big is bad.
- The Truth: The focusing question, The Success Habits, The Path to Great Answers.
- Extraordinary Results: Live with purpose, Live by priority, Live for productivity, The Three.
- The Four Thieves, Putting the ONE Thing to work: GPS and 411.



Extreme Ownership

Duration: (1 day)

- Winning the War Within: Extreme Ownership, No Bad Teams Only Bad Leaders, Believe Check the Ego.
- Laws of Combat: Cover and Move, Simple, Prioritize and Execute, Decentralized Command.
- Sustaining Victory: Plan, Leading up and down the chain of command, Decisiveness amid uncertainty, Discipline Equals Freedom - The Dichotomy of Leadership.

Emerging Training Topic & Content



Data Analytics with Python

Duration: (5 day)

- Introduction to Data Analytics and its applications in real world
- Data Repositories-Databases, Data Warehouses, Data Marts, Data Lakes, and Data Pipelines
- Probability and Statistics, Plotting for exploratory data analysis
- Data Extraction Using SQL, Data analysis techniques
- Analysis testing Techniques, Case study, Hands-on practice, Industrial application



Big Data Analytics

Duration: (5 day)

- Programming foundation with Python
- Hadoop -Ecosystem, Configuration, Administration,
- Processing data using Map Reduce
- Plotting for exploratory data analysis (EDA)
- Data Handling with NoSQL
- Probability and Statistics, Analysis Testing Techniques
- Dimensionality reduction and Visualization
- Case study, Hands-on practice, Industrial application



Internet of Things

Duration: (5 day)

- Introduction to Internet of Things-Basic Concepts
- Networking and Communication Protocols
- Emergence of Edge Technologies: Fog Computing
- Introduction to IoT and IoT Case Studies
- Introduction to Machine Learning
- Big Data in IoT and its handling using ML
- Hands-on Experiments using Arduino and Raspberry Pi
- Case study, Hands-on practice, Industrial application



Artificial Intelligence, Machine Learning and Deep Learning

Duration: (5 day)

- Foundations for AI and ML and its applications in the real world.
- Supervised machine learning algorithms, Classification and Regression
- Un supervised learning methods, Partitioned and hierarchical clustering methods and association
- Ensembles methods and Reinforcement Learning
- Convolution Neural Networks
- Auto-encoders and unsupervised learning
- Stacked auto-encoders and semi-supervised learning
- Regularization - Dropout and Batch normalization
- Case study, Hands-on practice, Industrial application



Blockchain Technology

Duration: (5 day)

- An overview of Blockchain and the Fundamental Technologies
- Blockchain 1.0: Bitcoin
- Blockchain 2.0: Ethereum, Ripplenet Enterprise Blockchain Platform and IBM Hyperledger Blockchain Platform
- Applications and use cases of Blockchain in enterprises and government Organizations
- Modeling Blockchain applications
- Chaincode, Chaincode types and smart contract
- Developing and Deploying Chaincode and smart contract
- Testing Chaincode and Debugging smart contract
- Vehicle Manufacture Lifecycle Case Studies, Hands on Lab and Mini Applications for Enterprises.



Cloud Computing

Duration: (5 day)

- The Cloud computing and its essential characteristics
- The cloud service & deployment models
- Impact of Cloud Computing on overall IT Investment and ROI
- Understanding VMs, Networking and Storage in the Cloud
- Explain emerging Cloud related trends including Hybrid Multi-Cloud, Microservices, Serverless, Cloud Native, DevOps and Application Modernization
- Overview of Azure, AWS and Google Cloud Platforms
- Case Studies, Hands on Lab and Capstone Project



Application of AI and ML in Steel Industry

Duration: (1-2 day)

- Data Mining Approach, R Programming
- Predictive Algorithms, Python Programming
- Predictive Algorithms in Image Processing, Python Programming
- Characterization and Utilization of Fly ash



Artificial Intelligence in Power Plant

Duration: (1 day)

- Basics of artificial intelligence (AI) and internet of things (IOT).
- AI-based algorithms.
- Importance of application of AI-based algorithms in power plant.
- Optimization of process parameters through case studies.



Data Visualization Using Power BI

Duration: (1-2 days)

- Introduction
- Data Transformation & Pre-processing
- Data visualization using charts
- Presenting data in Tables
- Data Slicing & Filtering
- Data Analysis, Forecasting and Clustering
- Publishing Report



MASTER MS OFFICE - EXCEL, PPT & WORD USING CHAT-GPT & AI TOOLS

Duration: (1-3 days)

- The concept of artificial intelligence related to Microsoft Office tools
- Excel: Data analysis, recommended pivot tables and dynamic charts, Automatic cell filling, Creating tables from numbers in an image or a PDF file, Forecasting trends in your data
- Word: Dictation for quicker document creation, Instant translation of your texts, Smart search
- PowerPoint: Rapid and impactful presentation design, the coach that analyzes and provides feedback on your presentations and your way of expressing yourself, Automatic subtitling of your slideshow.



Advanced Excel using ChatGPT and AI

Duration: (1-2 days)

- Built-In Excel AI Tools
- Getting Started with ChatGPT for Excel
- Using ChatGPT for Excel Formulas
- Advanced Formulas with ChatGPT for Excel
- Data Cleaning and Transformation with ChatGPT
- Data Analysis with ChatGPT, ChatGPT and Macros

Partial List of Corporate Trainers



Dr. R. D. Patidar
Vice-Chancellor

- PhD in Power Systems and Power Electronics from IIT Roorkee
- 28+ years of experience in academia and industry.



Dr. Mahesh Bhiwapurkar
Director- CCET

- Ph.D. in Mechanical Vibration from IIT Roorkee, India.
- 25 years of Teaching, Industry and Research experience.



Dr. Shesadev Nayak

- Ph.D. in Management.
- 31 years rich Industry and Academics experience.



Dr. Siddharth Chakrabarti

- Ph.D. in Mechanical Engineering IIT-Kharagpur
- 23 years of Industry, Academic and Research experience



Dr. Biranchi Prasad Panda

- PhD in Design Technology Management
- 31 years rich Industry and Academics experience.



Dr. Sanjay Kumar Singh

- Ph.D. in English with 20 years of teaching and training experience
- Recipient of 'Dr. SRK National Teacher Award' and 'Vidya Ratan Award of Research Excellence'



Prof. Manoj Kumar Mishra

- PhD, MBA (Marketing),
- B.Tech (Mechanical)
- 12 years rich Industry and Academics experience.



Dr. M. Kalyan Phani

- Ph.D. in Materials Engineering from HBNI, Indira Gandhi Centre for Atomic Research (IGCAR) Campus, Kalpakkam, Tamil Nadu.
- 13 years of Teaching and Research experience.



Dr. Trinath Talapaneni

- Ph.D. in Process Metallurgy, NIT, Rourkela
- 8 years of teaching and research experience



Dr. Vatsala Chaturvedi

- Ph.D. in Foundry Technology from MNIT Jaipur
- 8 years of teaching and research experience



Dr. Sibnath Kayal

- Ph.D.(NTU Singapore), M.Tech., B.Tech.
- 8 years of teaching and industry experience



Dr. Himanshu Vaishnav

- PhD, MBA in HR & Business Analytics
- 11 years of teaching and industry experience



Dr. Jaya Prakash Rath

- Ph.D. (Sambalpur University), MBA
- 8 years of teaching and industry experience



Dr. Deepak Singh

- Ph.D. in Electronics and Communication, NIT Rourkela
- 13 years of experience in academia, industry, and administration.

Partial List of Corporate Trainers



Dr. Mithilesh Kumar Sahu

- Ph.D & M.Tech (NIT, Jamshedpur), B.E. (Mechanical)
- 12 years of experience of teaching
- Expertise in Thermo-dynamics and Thermal System



Prof. Akash Pandey

- Pursuing Ph.D. from NIT Jamshedpur, M.Tech in Thermal Engineering from NIT Rourkela
- 10 Years of teaching and industry Experience.



Dr. Ravindra Singh Saluja

- Ph.D (BITS, Pilani), M.Tech (IIT Guwahati), B.E (GEC Bilaspur)
- Worked as a Senior Engineer in TRF LTD. (A Tata Enterprise), Jamshedpur
- Worked with BITS Goa.



Dr. Sandeep Biswal

- Ph.D. in Power Systems from NIT, Raipur
- 5 years of teaching and industry experience



Prof. Asim Danpat

- Pursuing Ph.D. in Computer Science & Engineering from NIT Patna,
- M.Tech in Computer Science
- 11 years of teaching and industry experience



Prof. Umashankar Pandey

- M.Tech (Information Security), RGPV Bhopal, BE (Computer science & Engg.) NIT Raipur.
- 18 years of academic experience



Mr. Soumitra Tiwari

- Expertise in Soft skills, Workplace & Oral Communication.
- Certified Career Coach by Career Development Alliance USA & Mindler, Dr. Reddy's and HHH Foundation-partners Tata Trust.



Mr. Vishnu Tamrakar

- MBA, B.E. (ETC)
- Result oriented professional with over 11 years of rich experience in Professional, Learning and Development.



Dr. Arindam Patra

- Ph.D, M.Phil, M.A, B.Ed.
- Master Trainer for BOSCH-BRIDGE Programme
- Proficient in English language, Soft Skills, and Personality development.



Prof. Suchismita Panda

- Ph.D, B.Ed., M.A., B.A.
- 06 years of academic experience
- Expertize in English Language, American English & Cultural Studies



List of The Training Conducted

S N	Title of Training	Duration of training	Number of times conducted	S N	Title of Training	Duration of training	Number of times conducted
1	Campus to Corporate	1-2	18	24	Positive Attitude	1	2
2	POSH	1	1	25	Business Etiquettes	1	2
3	Theory of Constraint	1-2	4	26	Internet of Things	1	1
4	Finance for Non-Finance	1-2	31	27	Contract Management	1	1
5	Total Productive Management	1	01	28	Supply Chain Management	1	1
6	Basics of Iron and Steel	10	01	29	Power Plant Maintenance	3	1
7	Design Thinking	1	2	30	Negotiation Skill	1	3
8	Capability Development Program	2-5	10	31	Young Leader Program	10	1
9	Behavioral Based Safety	1	6	32	Artificial Intelligence for Power Plant	1	1
10	One Thing	1	1	33	Interpersonal Skill	1	09
11	Code of Conduct, Vision, Mission, Core Value	1	6	34	AI for Steel Plant	1	1
12	One Thing, Extreme Ownership, TOC	1	9	35	Soft Skill for Security	0.5	3
13	Basic and Advanced Excel	1-2	13	36	Basic Computer Skill & MS Office	1	3
14	Project Management	1-2	13	37	Leadership Skill & Time Management	1	2
15	MS Word & Power Point	1-2	5	38	Self-Management Skill	1	2
16	Team Building	1	11	39	Iron & Steel Making for GET	12	2
17	Communication Skill & Basic Etiquettes	1	7	40	Emotional Intelligence at workplace	1	2
18	Operational excellence & link to financial performance	1	30	41	Importance of Metallurgy in Steel Industry	03	2
19	Emotional Intelligence for Professional & Personal Growth	1	30	42	Soft Skill & Customer Service	01	4
20	Communication at Workplace	1	30	43	Developing Leaders for Next Orbit	02	2
21	Creative Thinking and Problem Solving	1	30	44	Design Thinking & Creative Problem Solving	1	2
22	Team Work and Managing People	1	30	45	Thermodynamics & Fluid Mechanics of thermal power plant	1	1
23	Operational excellence & link to financial performance	1	30	46	Welding Technology	2	2

Our Training Partners



Training Infrastructure



Wire EDM Machine



CNC Lathe Machine



Hydraulic Trainer



Welding Simulator



Smart Class Room



Digital Class Room



Online Training Media Room

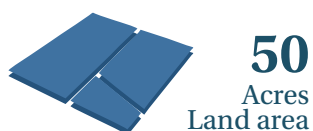


High-end Computer Lab



Robotic Welding (ARC/TIG/MIG)

Infrastructure



Research Publications



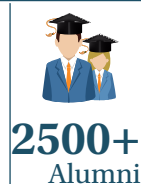
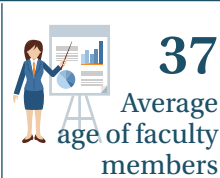
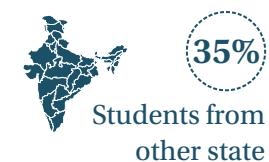
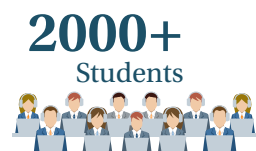
Centres for Excellence



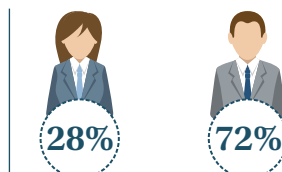
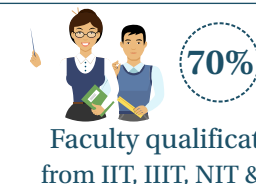
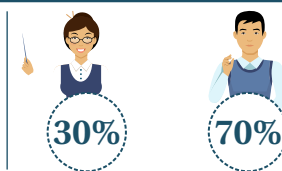
Library



Students



Faculty and Staff



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