

**Kriatec's Learnew** : Best e-Learning System  
for Maximising the Skillsets for Enhanced Productivity  
and Quality in Mechanical Industries



[www.learnew.org](http://www.learnew.org)

**15 Years of  
Business  
Excellence**

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**LEARNEW**   
Upskill with Kriatec Next Gen eLearning

## Kriatec's Learnew : The Ultimate e-Learning System you'll ever Need.

In today's rapidly evolving world, Industries face constant challenges and opportunities brought about by technological advancements, globalization, and changing customer demands. To remain competitive, companies must adapt and foster a culture of continuous improvement learning. By mapping the integration of new skills across various departments, organizations can optimize their operations, boost innovation, and drive overall success.



**The Importance of Learning New Skills:** Adapting to Technological Advances: As technology rapidly evolves, companies must cultivate a workforce that can effectively leverage new tools and platforms.



**Navigating Changing Market Trends:** Industries are influenced by shifting customer preferences and market dynamics. Organizations must invest in skill development programs to equip their workforce with the ability to anticipate and respond to emerging trends effectively.



**Enhancing Employee Engagement and Retention:** Offering opportunities for skill acquisition not only helps employees stay engaged but also improves their job satisfaction. By investing in their professional growth, companies can foster a culture of continuous learning, attracting and retaining top talent.

**In today's fast-paced world, upskilling is crucial for professionals in mechanical industries to excel in their fields.** Learnew provides a digital pathway for skill development, addressing the common challenge faced by working professionals in acquiring the necessary expertise. The platform acts as a catalyst, enabling engineers to acquire the specific skillsets required to thrive in their respective industries.

Kriatec Services has made significant improvements in the new product development process in CNC machining such as Production, Mould and Die, Machine Tools and Valve Machining Industries for over 300 customers in India by implementing EdgeCAM software, Cutting Tools, Probes and Productivity Improvement Projects for the past 14 years.

Continuous learning is crucial in the ever-evolving Mechanical/Manufacturing Industries. At Kriatec Services, we have developed tailor-made e-Learning skill development programs that cater to the upskilling needs of individuals seeking career growth.

**Learnew offers a comprehensive range of self-paced e-Learning courses, accessible 24/7, to accommodate professionals' busy schedules.** The Courses are thoughtfully designed, incorporating a minimum of five industry-specific live examples to ensure practical understanding. The content is carefully crafted, making it easy to comprehend and apply in real-life scenarios. Learners can also leverage mind mapping techniques provided within the courses to enhance their problem-solving abilities.



**To provide continuous support,** Learnew includes an online support text box for each topic, allowing professionals to seek assistance or clarification whenever required. Additionally, the platform offers high-quality video streaming of live industry examples, enabling learners to witness the application of concepts in real-world scenarios, further enhancing their understanding.

**Learnew places great importance on continuous assessment** to ensure optimal learning outcomes. Throughout the courses, learners will encounter multiple-choice questions (MCQs) and live projects to assess their understanding and progress.

**Learnew is a groundbreaking eLearning platform designed to cater the skill development needs of professionals in mechanical industries.** With its self-paced courses, practical examples continuous assessment, Learnew empowers engineers to enhance their skillsets, improve productivity, and excel in their respective fields.

## Skill Development Course on Geometric Dimensioning & Tolerancing

### Importance of GD&T

- GD&T is used in all the manufacturing industries like Automotive, Aerospace, Machine tool builders, Oil & gas, etc.
- GD&T is widely used in the Quality, Design, Assembly & Manufacturing departments of any manufacturing industry.

### Focus Areas

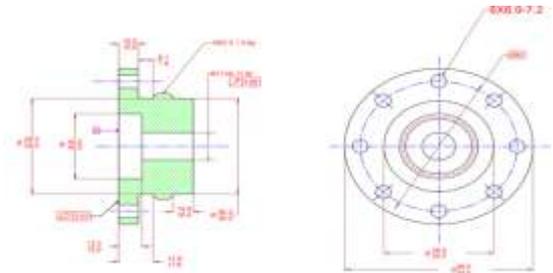
- Our Geometric Dimensioning and Tolerancing course covers the fundamentals and principles of the ASME Y14.5 2009 GD&T standard. The course focuses on the 14 geometric characteristic symbols, explaining in detail each symbol, feature control frames, different modifiers and how they affect tolerancing when placed in the feature control frame.
- The course also goes into depth on datums and datum selection methods. You will be exposed to methods of inspection for the characteristic symbols, composite feature control frames and design exercises.
- The course is delivered with a combination of principles, exercises and examples from a professional with over 20 years of practical experience.

### Why is GD & T Skill important?

Geometric dimensioning and tolerancing, often referred to as GD&T, is a symbolic language used on engineering drawings and models to define the allowable deviation of feature geometry. The language of GD&T consists of dimensions, tolerances, symbols, definitions, rules, and conventions that can be used to precisely communicate the functional requirements for the location, orientation, size, and form of each feature of the design model. Thus, GD&T is an exact language that enables designers to “say what they mean” with regard to their design models. Production can then use the language to understand the design intent, and inspection looks at the language to determine set up requirements.

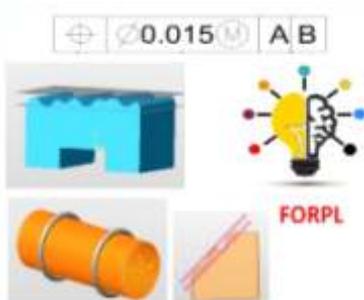
GD&T : Communicates Design Intent like Fit, Assembly and Function, Manufacturing Process flow and Inspection process. All Mechanical, Automobile and Mechatronics Engineers need to understand all the GD & T symbols and apply them in Engineering Drawings. GD & T is the basic requirement to enter into all the Engineering departments : Product Design, Manufacturing, Process Planning and Quality. GD&T Course content is curated to create, understand and interpret the drawings that are created in various countries across all industries.

**There are 7 more GD & T symbols and controls missing in this drawing.**



### Outcomes of the GD&T course :

- Understand and explain the various GD&T symbols
- Read and interpret any manufacturing detailed drawings created across the globe
- Prepare a manufacturing drawing with proper GD&T usage which leads to less ambiguity for the user of the drawing
- Identify and explain where and why a particular GD&T symbol must be used
- Decide on the method of measuring the various GD&T symbols



**Duration of the Geometric Dimensioning & Tolerancing course : 2 Weeks & 1 hour of effort per day.**

- A Yearly Subscription Model is available.

### Eligibility:

- Working professional with a minimum of 6 months working experience in Design, Quality, Production, NPD/MED/PED, Vendor Development and Purchase.
- Should have a Degree/Diploma from a University or college

**Certification :** On successful Completion of the Course, AICTE, New Delhi Evaluated Certificate will be provided

## Skill Development Course on Fixture Designing

### Importance of Fixtures :

To produce any new part or component in CNC machine, we need Fixtures to hold the component while machining. Fixtures are widely used in most of the manufacturing Industries like Automotive, Aerospace, Pump assembly, Precise Parts Manufacturing industry, etc.

### Why is fixture design skill important ? :

Fixture design is a vital part of New Product Development cycle. To design and manufacture the fixture we need a lot of skillsets and in-depth understanding of CNC machining process and Locating / Clamping Principles.

The Kriatec Services TEAM opens the opportunity to learn Fixture Design from Industry experts who have 20+ years of experience in Fixture Design and Manufacturing.

It encompasses the complete process of fixture designing from the Concept of Fixture Design to Manufacturing of Fixture Parts.

### Focus Areas :

- Purpose of Fixture Design in Industries
- Types and Functions of Fixtures
- Supporting and Locating Principles
- Clamping and Work-holding Principles
- Process planning and Set -up Finalisation
- Construction of Fixtures
- Step by Step Procedure for Milling (VMC) Fixture Design
- Insight over HMC (Horizontal Machining) Fixture Design
- Live Industry examples for a better understanding
- Manufacturing Drawing Preparation for VMC and HMC Fixtures (Assembly and Detailed Drawings of Fixture parts).

Fixture Design Concepts and 2D Manufacturing Details concepts - Dos' and Don't's explained and you can use any 3D Model or 2D Drafting CAD Software or Hand sketching is also fine. The Main objective of this course is to provide insights into Fixture Design concepts and not 3D Modelling capabilities and features

### Outcome of the Fixture Designing Course :

- Design a good Quality Fixture
- Identify the principles of support
- Decide the locating components of a fixture
- Decide the clamping components of a fixture
- Identify the required tolerance in a work-holding device
- Prepare a Manufacturing drawing required for manufacturing the fixture



### Duration of the Fixture Design course :

- 4 weeks & 2 hours of effort per day. A Yearly Subscription Model is available.

### Eligibility:

- Working professional with a minimum of 6 months of working experience from NPD/MED/PED & Production.
- Should have Degree or Diploma from a University or college.

**Certification :** On successful Completion of the Course, AICTE, New Delhi Evaluated Certificate will be will be provided

## Skill Development Course on Hydraulic Fixture Design

### Hydraulic Fixtures for CNC Machining Applications

This Online Course will introduce the Participants to the field of Hydraulic Fixture Design in New Product Development using CNC Machines.

The Kriatec Services TEAM opens the opportunity to learn Hydraulic Fixture Design from Industry experts who have 20+ years of experience in Fixture Design and Manufacturing.

It encompasses the Vital Processes involved in Hydraulic fixture design from concept, to Detailed Design to Manufacturing Drawings, and Preparation of Fixture Parts.

The Course will be highly interactive and it covers Techniques involved in Hydraulic Fixture Design with Lucrative examples

### Focus areas are:

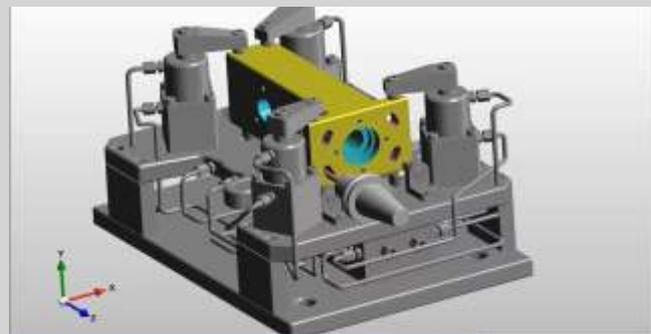
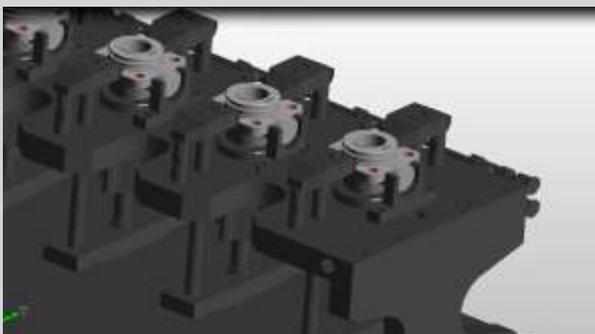
- Need for Hydraulic Fixture Design in Industries
- Brief Steps Involved in Hydraulic Fixture Design
- Supporting and Locating Principles
- Clamping Principles with various Hydraulic Cylinders Application
- Construction of Hydraulic Fixtures
- Step by Step Techniques involved in Hydraulic Machining Fixture Design using Push / Pull Hydraulic Cylinders (Industry Application Example 1)
- Step by Step Techniques involved in Hydraulic Machining Fixture Design using Swing Clamp Hydraulic Cylinders (Industry Application Example 2)
- Step by Step Techniques involved in Hydraulic Machining Fixture Design using Push/ Pull Cylinder with Swing Clamp Hydraulic Cylinders (Industry Application Example 3)
- Insight over Hydraulic Horizontal Machining Fixture ( Industrial Application Example 4)

### Duration of the Course

- The Duration of the Hydraulic Fixture Design course is 4 weeks. A Yearly Subscription Model is available.
- Listen to E-Learning classes and work on exercises given (4 to 5 Hours a week at your own Pace)
- Hydraulic Fixture Design Concepts and 2D Manufacturing Details concepts – Do's and Don'ts explained and you can use any 3D Model / 2D Drafting CAD Software or Hand sketching is also fine. The Main objective of this course is to explain insights into Hydraulic Fixture Design concepts and not 3D Modelling capabilities and features
- Successful completion of training participants are awarded a Certificate

### Eligibility:

- This programme is exclusively designed for working professionals with basic Fixture Design Experience for a minimum of One Year.



Images for Hydraulic Fixture Design

**Certificate** :On successful Completion of the Course, the Certificate will be Issued by Kriatec Services Pvt Ltd.

## Skill Development Course on New Product Development in CNC Machining

### Importance of NPD in CNC Machining :

Our New Product Development in CNC Machining is constantly evolving with innovative techniques and methods to deliver high-quality products to our customers on time. With cutting-edge technologies in place, our NPD in CNC Machining plays a vital role for industries striving for growth.

### FOCUS AREAS

#### Drawing Study

- Types of views and Projections
- Limits, Fits and Measurement Techniques of Surface Finish
- Geometrical Dimensioning and Tolerance
- Measuring Tools & Instruments

#### Process Planning

- How to select a machine tool by considering the type of operation and machining parameters
- How to decide the process sequence based on the component

#### Cutting Tool Selection

- Inserts and tool holders for turning
- Milling cutters & End mills
- Clamping systems

#### Fixture Design

- Basic concepts and principles of fixture design
- How to design a fixture based on component datum

#### Systems in NPD

- Systems used for Lean manufacturing
- Significance of CAM in costing

#### Currents trends in Manufacturing

- How to make the first part right at the fastest time
- Green button concept
- Factors missed out in cost estimation
- Significance of integration of CAD/ CAM in manufacturing

#### Outcome of New Product Development in the CNC Machining Course :

- Understand Manufacturing Drawing well and deciding the best Manufacturing Process
- Decide the best Set-up options for Machining in VMC or HMC
- Selection of the best Cutting Tools for the required operations
- Provide the basic Clamping support system to provide support during machining
- Understand the latest technologies available in CNC Machining

#### Duration of the New Product Development in CNC Machining course :

- 3 weeks & 2 hours effort per day. A Yearly Subscription Model is available.

#### Eligibility:

- Working professional with a minimum of 1 year of working experience from NPD/MED/PED, Vendor Development & Production.
- Should have a Degree/Diploma from a University or college.



**Certificate :** On successful Completion of the Course, the Certificate will be Issued by Kriatec Services Pvt Ltd.

## Skill Development Course on Edgecam Programming Milling / Turning / Turn-Mill

### Why is Edgecam Programming Skill Important ?

In highly competitive markets, automation is the key for reducing programming time and maximising efficiency. Edgecam uses your in-house knowledge and experience to drive the CAM process with automation tools – allowing, you to maintain your competitive edge.

Edgecam software is widely used in manufacturing Industries like Automotive, Mould & Die, Aerospace, Oil & gas, etc.

Edgecam software is developed for Virtual CNC Manufacturing and from CNC Code generation for latest 4/5 HMC/VMC/Turn-Mill CNC Machines.

Keeping this in view, Kriatec Services is organizing a Self paced course on Edgecam. The objective of this course is to ensure that participants are exposed to CNC Milling & CNC Turning CAM Programming.

### Focus Area :

- Getting Started/ Setup/ Feature Finding
- Roughing Cycle, Profiling Cycle
- Hole Operation – Drill/ Tap/ Bore/ Ream
- Thread Milling/ Back Boring/ Live Job Report
- CPL Creation/ HMC Operation
- 4th Axis Positioning in VMC
- Engraving/ Parallel Lace
- Constant Cusp Finishing/ Flow Surface Finishing
- Productivity options in the Milling Module
- Roughing/ Finishing, Grooving/ Threading
- Profile Turning/ Part off
- Side Groove Rough & Finish
- Waveform Turning
- Axial & Radial Drilling/ Milling
- X,Z,C Simultaneous (Turn-Mill operation)
- Productivity options in the Turning Module

### Outcomes of the Edgecam Programming course :

- Load the CAD model and set the part for machining
- Select the proper tools as per the requirements
- Create CNC programs for CNC Milling machines (HMC and VMC), CNC Lathe/Turn-Mill
- Check the virtual machine simulation of the toolpath, before delivering the programs to the machines



**Duration of the Course :** 4 Weeks & 2 hours effort per day. A Yearly Subscription Model is available.

**Eligibility:** Working professional with a minimum of 1 year of working experience from NPD/MED/PED. Should have Degree/Diploma from a University or college.

**Certificate :** On successful Completion of the Course, the Certificate will be Issued by Kriatec Services Pvt Ltd.

## Skill Development Course On 7 Quality Control Tools & 8D Problem Solving Techniques

### Why are 7 Quality Control Tools & 8D Problem Solving Skills important ?

The 7 QC Tools & 8 D Problem Solving Technique Skill Development Course will give a clear understanding and application on basics of Quality, Quality systems used in the industry, Cause Defects and rejections happening on production line and there may be different types of problems causing these defects. The 7 Quality Control tools is a problem solving technique to solve many different types of problems that affect quality. The seven basic quality control tools are set as a basic requirement for the new engineers and commonly used graphical statistical analysis tools.

These techniques are generally used by automotive and engineering companies. In an organisation these techniques are used in various departments like Engineering, Production, Quality, Material Management. Apart from the technical departments, non-technical departments like the Human resources and Finance departments are also using to resolve their issues. As problem solving is a basic need for any Engineer in his/her day to day activity, this course will help them in analysing and resolving any type of problems.

This course will go in depth about all the 7 Quality Control tools and 8D Problem Solving Methods to make the participants understand & apply them in their day to day activities.

All the seven Quality tools are explained in detail with live Industrial Examples.

### Focus Areas :-

- Basics Quality Systems
- Basics of Defects, Rejection & Rework
- Basics & Introduction on each 7 Quality Control tools
- Procedure to prepare and make each of the 7 Quality Control tools
- Case studies for each of the 7 Quality Control tools
- History of 8D and Need and Usage of 8D
- Hindrance for Problem Solving
- Importance of the 8D report
- Steps to follow in 8D and How to Create an 8D Format
- Examples of 8D Problem Solving Methodology

### 7 QC TOOLS

PARETO CHART

STRATIFICATION

CHECK SHEET

SCATTER DIAGRAM

HISTOGRAM

CONTROL CHART

FISHBONE



### Duration of the Course :

2 Weeks & 1 hours effort per day. A Yearly Subscription Model is available.

**Eligibility:** Working professional with a minimum of 1 year of working experience in Production, Quality & Design Engineers. Should have a Degree/Diploma from a University or college.

**Certificate :** On successful Completion of the Course, the Certificate will be Issued by Kriatec Services Pvt Ltd.

## Skill Development Course on Quality Management System

This Online Course will give a clear understanding on basics of Quality, where Quality comes from, Concept of Quality and what is QMS. This course also speaks about of basics of Quality management system, Principles of QMS and Elements of QMS. Also it will shows the areas of wastage and how to eliminate it in the organisations

This system is in current use in most of the companies with any discipline. QMS is used in all part of the organisations from top management to bottom level operator.

Learnew opens the opportunity to everyone learn the QMS from industry expert who have 20+ years of experience in Managerial Position. This course will go in depth about all the Quality Management Systems and Certifications to make the participant understand their activities.

### Focus Areas are:

- Basics of Quality Management System.
- Principles of Quality Management System
- Implementation of QMS
- QMS Certifications
- Cost of Quality
- Fundamentals of ISO
- Basics of ISO 9000 & Brief about Level 4 Documents

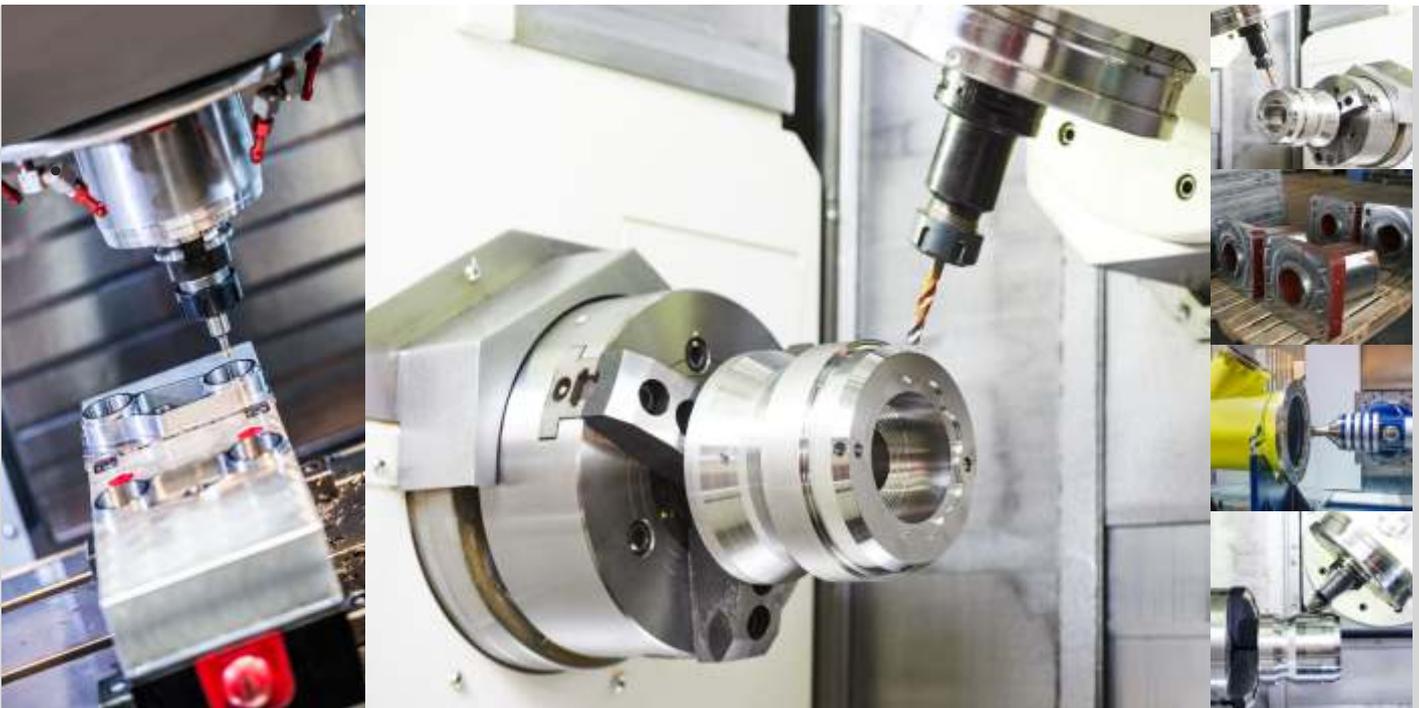
### Duration of the Course

- The Duration of Quality Management System course is 2 weeks course effort. A Yearly Subscription Model is available.

### Eligibility:

- Listen elearning classes and work on exercises given (Minimum Effort: 2 hours per Day)

**Certificate** :On successful Completion of the Course, the Certificate will be Issued by Kriatec Services Pvt Ltd.



## Skill Development Course on Mould & Die Design For Sand Casting & Plastic Injection Mould

This online course will provide you with the essential knowledge and principles involved in designing and creating Moulds for parts manufactured by sand casting and plastic injection moulding.

Moulds are metal tools with a precise shape that are used to bring metal or plastic to a desired form to obtain a particular component.

This manufacturing process is extensively used in various industries like Automotive, Marine engineering, Aerospace, Machine manufacturing, Medical devices & Household appliances.

### FOCUS AREAS:

#### The focus areas in Sand Casting Mould & Die Design: -

- Introduction to Mould and Die and Mind Mapping
- About Sand Casting Mould
- Step-by-Step Techniques Involved in Sand Casting Mould & Die Design
- Brief Explanation of the Gating System in Sand Casting Mould with Live Examples
- Live Examples 01 and 02 with full Technical Explanations about the Sand Casting Mould & Die Design Involved

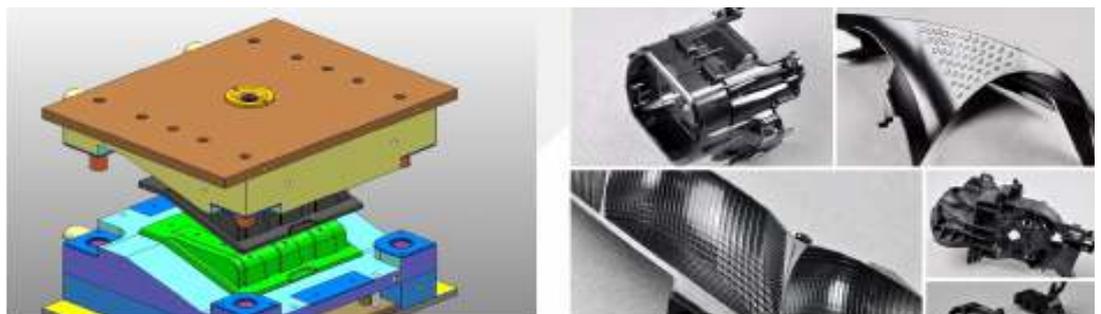
#### The focus areas in Plastic Injection Mould & Die Design are:

- Introduction to Plastic Injection Moulding
- Types of Plastic and Materials Used in Plastic Injection Moulds
- Technical explanation of the Design Concept
- Core and Cavity Splitting Design: A Step-by-Step Guide with a Live Example
- How to choose a Shrinkage allowance for a Mould
- Ejection and Cooling System Design Explained Step by Step
- Detailing the Sprue, Runner, Hot runner system and Gate with Live Designs
- Briefly explain Side core, Finger CAM, Angular Lifter and Pneumatic Cylinder Design and Function.
- Design Corrections with the Wrong Mould Design and the Correct Mould Design with Live Examples
- A brief explanation of the Plastic Material used, Melting Temperature, and Moulding Machine Selection
- With five (5) Live Examples, everything is explained about the Design Techniques of Plastic Injection Moulds.

**Duration of the Course :** 3 Weeks & 2 hours effort per day. A Yearly Subscription Model is available.

**Eligibility:** Should have a Degree/Diploma from a University or college.

**Certificate :** On successful Completion of the Course, a Certificate will be Issued by Kriatec Services Pvt Ltd.



## Mapping New Skills and Cross-Department Collaboration in the Modern Industry

Skill Mapping	Research & Development	Production Engineering	Production	Vendor Development	Quality	Sales & Marketing
Geometric Dimensioning & Toleranceing						
Fixture Design						
Hydraulic Fixture Design						
New Product Development						
CAM Programming						
7 Quality Control Tools						
Quality Management System						
Mould & Die Design						

No Competence

Low Competence

Some Competence

High Competence

Expert

Kriatec's Learnew is a revolutionary eLearning platform specifically designed to leverage and enhance the skillsets required for success in mechanical industries. With Learnew, professionals in fields such as automotive, aerospace, medical, tool making, oil & gas, and more can significantly improve their productivity and deliver high-quality products to their customers.

Ministry of Education Government of India appreciated skill set course during our course presentation to AICTE (All India Institute of Technical Education). Engineering students from various colleges undergoing these courses.

**Trained more than 3,500 industry professionals**

### OUR ACCOMPLISHED LEARNERS FROM PROMINENT MECHANICAL INDUSTRIES, SHAPING THEIR SKILLSETS



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