

1. Process gas
2. Cutting nozzle
3. Nozzle offset
4. Cutting speed
5. Molten material
6. Dross
7. Cut roughness
8. Heat affected zone
9. Kerf width

IKUSASA

CNC TRAINING CENTRE

WE ARE THE *FUTURE*

EDGE CAM

BASIC MILLING & TURNING

www.ikusasatraining.co.za

EDGECAM COURSES

EDGECAM Basic Milling & Turning

Requirements: General computer skills is compulsory.

Duration: 6 Days

Time: 08:30 - 16:00

Inclusions: Catering & Refreshments (full time in-house training), relevant stationary, competency certificate.

OVERVIEW

EDGECAM is a top computer-aided manufacturing (CAM) system for NC part programming, recognized for its user-friendliness and advanced tool-path generation, suitable for milling, turning, and mill-turn machining.

EDGECAM leverages your in-house expertise and automation tools to enhance the CAM process for various applications, helping you maintain a competitive advantage.

Our basic EDGECAM Training course is designed for your every-day user who could be a CNC Programmer / Fitter & Turner / Toolmaker or eve workshop staff & students. This course covers the complete basics of EDGECAM software leaving the delegate with a basic understanding of how to operate EDGECAM software.

The course consists of 6 Days in-class where we cover the complete basics in terms of:

1. EDGECAM Wireframe Design

- EDGECAM interface, Explain all commands used for the designing purposes.
- Cartesian plane, understanding Axis directions.
- 2D Drawings, creating Arcs, creating lines and creating points

- Line & Arc Dialogue
- Editing 2D geometries or drawings, (Blending, Chamfering, deleting, etc.)
- Layer controls, changing geometry colours, line thickness, filtering geometries.
- Transforming entities, (Translating, Rotating, Mirroring, Scaling, 3D scaling, Transposing)

2. EDGE CAM Designer Overview and Solid Machinist

- Explain Designer interface & overview.
- Design 2 components, 1 Milling and 1 turning components.
- Loading DXF/DWG files to designer.
- Loading Solid model in EDGE CAM (Milling & Turning Components).
- Use of setup window for quick alignment in either milling or turning.
- Use of radio buttons for quick alignment and translation & rotating.
- Align Solid Component for milling.
- Stock Database, Fitting Stock, Picking Stock.
- Fixture Database, Picking Fixture.
- Feature Finding, (Hole features, Milling Features, Contour Features, 2D Pockets etc.)
- Automatic Machining using the Planning Board.
- Semi – Auto Machining.
- Extracting edges from solid, edge loop from solid, Body face silhouette.

3. Milling Machining Wireframe Geometries

- Machine the packing Adaptor.
- Facing (Skimming) cycle, Roughing cycle, Profile Milling Cycle, Flatland Finishing, Drilling Holes e.g. centre drilling, Chip breaking, Peck drilling, counter boring, Tapping cycles.
- Machine the Contour Wall Exercise.
- Roughing cycle with contour walls roughing cycle with intermediate slices.
- Profile Milling with Contour walls, profile milling and cusp heights.

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4. Milling Machining Solid Models

- Containment Boundary entities.
- Intermediate slices on solid models.
- Stock types
- Waveform milling, trochoidal machining
- Milling Fixture checking, holder & Tool collision checking.
- Parallel Lace cycle
- Hole caps to covers holes and prevent tools from cutting unwanted holes.
- Cycles
- Optimisation machining on multiple pockets.
- Multiple Setup from different faces of the component.
- Direct solid face picking

5. Tuning Machining both Wireframe & Solids

- Machining the Stub Axle first in wireframe
- Cycle includes but not limited to; Face Rough Turning, Rough Tuning for Tuning, Finish Turning, Grooving cycles, External threading, Drilling holes, Taping cycles.
- Waveform Machining
- Turn Billet Stock
- Rough Turn Profile Machining.
- Part Off cycle.

6. Productivity Tools Box

- Fixture manager, Stock Manager, Machine Manager, License manager.
- Tool Store Administrator
- Technology Assistance.
- Job Manager
- Toolkits
- Editing tools in the toolkits.
- Live job reports.