

Renovating the CNC Lab in Mechanical Engineering

Workshop

September 2018

I. Machine Tools & Accessories:

No.	Item	Unit	Quantity	Price, \$
1	Machine vice		1	
2	Flat End Mills (different cutter sizes & Shank diameters)		50	
3	Drills (different cutter sizes & Shank diameters)		30	
4	Ball nose End mills (different cutter sizes & Shank diameters)		10	
5	Collets (Tool holder: BT40)		6	
6	Face Shell Mill Cutter 90 Degree 6 Flutes R8 Milling W Inserts		2	
7	End Mill Re-sharpener.		1	
8	Face Shell Mill Cutter Inserts	Box	1	
9	Spindle lubricant	Liter	4	
10	Cooling oil	Liter	80	
11	WD-40 Specialist Rust Remover Soak	Gallon	4	
12	Hose for Cooling fluid with two outlets	Hose	2	
13	Cooling fluid gun	gun	2	
Total				

II. CNC Lab as classroom for learning purposes:

No.	Item	Quantity	Price, \$
1	Workstation (Admin)	1	
2	PCs	10	
3	Data show and screen	1	
4	<u>Interchangeable control:</u> Keyboard base, -----→ Keyboard module <u>Sinumeric 810/840 D</u> , → Keyboard module <u>Fanuc 30 I</u> -----→	-- 1 1 1	
5	NX CAM	1	
6	ALUMITAL or WOOD walls and roof to surround and insulate the machine from dust and noisy and to be a suitable place as class room. With 10 chairs and 10 desks for the students, and 1 chair and 1 desk for the teacher. East wall (12 x 4 m ²) + Roof (12 x 10 m ²)		
7	Cupboard for tools and other accessories	2	
8	Air Compressor insulator	1	
9	Air Conditioner (2.25 HP for each)	4	
Total			