

## **ECE Workshop Safety Rules and Procedures**

### **I. General Safety Rules in the Workshop**

1. Always wear safety goggles when operating any machine in the workshop.
2. Do not operate any machine unless you are authorized to do so and under the Laboratory Officer's supervision.
3. Use the proper tool for the job. Check tools before use to ensure that they are safe to use.
4. Do not leave tools or work on the table of a machine even if the machine is not running. Tools or work may fall off and cause a toe or foot injury.
5. Put tools away when not in use. Place all scrap pieces in the correct containers.
6. Use a brush to remove chips – never with your hands, fingers, or rags. Chips are extremely sharp and can easily cause cuts and injuries.
7. Never use compressed air without supervision. Do not use compressed air to clean your clothes or yourself.
8. When using compressed air, always point the air outlet down and away from yourself and other persons.
9. Get help for handling large, long or heavy pieces of material or machine attachments.
10. Follow safe lifting practices – lift with your leg muscles, not your back.
11. Aisles and exit door should be kept clear at all times.
12. Store all items in such a way that they cannot become tripping hazards.
13. Keep the floor free of oil, grease, or any other type of liquid. Clean up spilled liquids immediately.
14. Loose clothing or long sleeves should not be worn in the workshop. Machines can easily grab loose clothing in rotating parts.
15. Many injuries and cuts in the workshop happened because students failed to observe safety precautions and due to improper handling of sharp cutting tool.
16. Get first aid immediately for any injury.
17. When in doubt, always check with the Laboratory Officer.

## **II. Safety procedure for operating the Drilling Machine**

1. Safety goggles must be worn at all times.
2. Secure the drill bit in the chuck. Use the chuck key.
3. Remove the chuck key from the drill chuck.
4. Secure the work piece in position by using a proper clamping device.
5. Lock the lever after adjusting the height and position of the table.
6. Check all before switching on the machine.
7. Switch off the machine once drilling operation is completed.
8. Remove and return drill bit to its proper place.
9. Clean up the machine after use.
10. When in doubt, consult the Laboratory Officer.

## **III. Safety procedure for operating the Portable Jigsaw**

1. Secure the work piece (plates) with clamps or vice.
2. Allow the base of jigsaw to slide on the plate.
3. Select the correct speed.
4. Apply light pressure until cutting is complete.
5. Remove jigsaw only when the blade has stopped completely.
6. Clear all metal chips with brush.
7. Clean the machine and put it away safely.

## **IV. Safety procedure for operating the Bandsaw Machine**

1. Safety goggles must be worn at all times.
2. Make adjustment and secure work piece first before switching "ON".
3. Select the correct speed
4. Keep hand clear and away from saw blade.
5. Observe proper cutting condition.
6. Use stick/woods to cut small area.
7. Switch "Off" machine once cutting operation is done.
8. Remove the work piece and clean up the machine after use.