



Typical Intermediate/Advanced Training Course Program

This **Intermediate / Advanced SCR Training Course** is ideal for those who have previously attended an SCR training program and who wish to further their knowledge. The essential SCR concepts are quickly revised. While the emphasis is placed more on tuning and regulation. This course includes some detailed study of the electronic circuits enabling students to tackle electronics troubleshooting to component level. The program covers the same ground as the Basic / Intermediate course while delving more deeply into the Hill Graham / Ross Hill designed circuits.

<ul style="list-style-type: none"> • Introduction • Basics of Rectification <ul style="list-style-type: none"> ▪ Revision of basic concepts of rectification • Analogue Electronics <ul style="list-style-type: none"> ▪ An introduction to electronics as used in the SCR system 	<ul style="list-style-type: none"> • SCR DC motor Control <ul style="list-style-type: none"> ▪ DC Motors ▪ Voltage Feedback ▪ Current Feedback ▪ Control Loops ▪ DC Module Electronics
<ul style="list-style-type: none"> • Generators <ul style="list-style-type: none"> ▪ Exciter Control ▪ Actuator Control ▪ AC Module Electronics 	<ul style="list-style-type: none"> • Practical Oscilloscope training • DC and AC module practical session with oscilloscope
<ul style="list-style-type: none"> • SCR System logic <ul style="list-style-type: none"> ▪ Assignment logic ▪ SCR control circuits ▪ Logic indicators ▪ Purge cycles and remote auxiliaries ▪ Troubleshooting ▪ Passive Field Supply ▪ Active Field Supply ▪ Mud Pump Active load sharing 	<ul style="list-style-type: none"> • Changing a Thyristor Puck Practical exercise • Electronics Troubleshooting to component level • Includes Practical session with fault finding simulator
<ul style="list-style-type: none"> • System Circuits <ul style="list-style-type: none"> ▪ Power Limit ▪ Driller's Console ▪ Sprocket Slip ▪ AC Ground Fault Detection ▪ DC Ground Fault Detection ▪ Dynamic Braking ▪ Regenerative Braking ▪ Surge Suppression ▪ Schematic drawings 	<ul style="list-style-type: none"> • Question and Answer Session