AKGEC-KUKA
INDUSTRIAL ROBOTICS TRAINING CENTRE

Robotic Ultrasonic Welding Application Cell

Ultrasonic welding is an industrial technique whereby high-frequency ultrasonic acoustic vibrations are locally applied to work pieces being held together under pressure to create a solid state weld. Robotics ultrasound welding wliminated the need for time consuming set-up and tool changes. Weld parameters adjustment and welding horns can be changed as needed via programming. An advantage of ultrasonic plastic as well as plastic-based fabrics and films, providing for increased flexibility. The technology is ideal for some applications, such as welding battery packs, automobile bumper attachment, door panel components, dashboard assemblies, manifolds, filters, internal trim, and sensors for the automotive industry.

Robot Specification:

Model	:	KUKA KR 10
Rated Payload	:	10 Kg
Maximum Reach	:	1496 mm
Repeatability	:	±0.04 mm
Controller	:	C4

Ultrasonic power source Specification

Make	:	EMRSON
Model	:	DCS X Series
Frequency	:	20 Khz
Power	:	1250 Watt
Max. Current	:	7A@200V
Breaker Current	:	15 A
Compensation	:	± 4.1mm