

- Fundamentals of casting process modelling
- Stress analysis
- Defect formation and prediction
- Microstructure evolution
- Thermophysical properties
- Quick analysis
- Electronic data interchange
- Sand casting
- Lost foam casting
- Investment casting
- Permanent mould casting
- Die casting
- Semi-solid metalworking
- Continuous casting
- Direct chill casting
- Vacuum arc remelting and electroslag remelting
- Plasma arc melting and electron beam melting
- Spray forming