



SNS COLLEGE OF ENGINEERING



Kurumbapalayam(Po), Coimbatore – 641 107

Accredited by NAAC-UGC with 'A' Grade

Approved by AICTE, Recognized by UGC & Affiliated to Anna University, Chennai

Department of Information Technology

Course Name – Software Engineering

II Year / III Semester

DESIGN CONCEPTS AND PRINCIPLES



Real-time executives

- Real-time executives are specialised operating systems which manage the processes in the RTS
- Responsible for process management and resource (processor and memory) allocation
- May be based on a standard RTE kernel which is used unchanged or modified for a particular application
- Does not include facilities such as file management



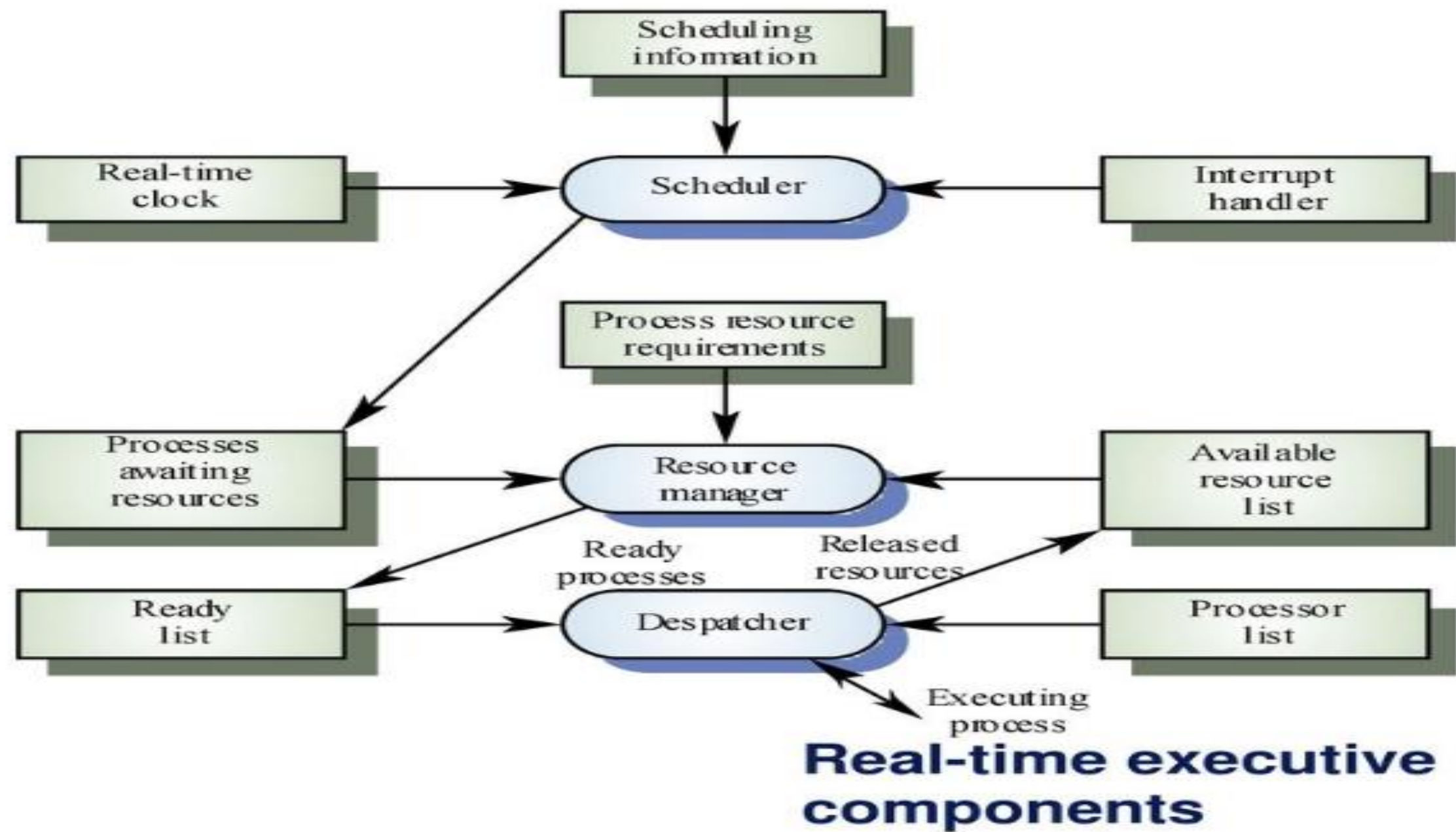
Executive components

- **Real-time clock**
 - Provides information for process scheduling.
- **Interrupt handler**
 - Manages aperiodic requests for service.
- **Scheduler**
 - Chooses the next process to be run.
- **Resource manager**
 - Allocates memory and processor resources.
- **Despatcher**
 - Starts process execution.

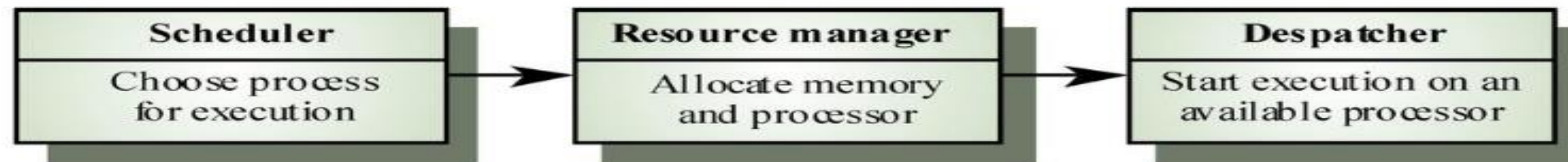


Non-stop system components

- **Configuration manager**
 - Responsible for the dynamic reconfiguration of the system software and hardware. Hardware modules may be replaced and software upgraded without stopping the systems
- **Fault manager**
 - Responsible for detecting software and hardware faults and taking appropriate actions (e.g. switching to backup disks) to ensure that the system continues in operation



RTE process management





THANK YOU

