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(57) Abstract :

The present invention discloses a computer model for smart energy-efficient processor architectures that integrates an intelligent power management unit (101), dynamic core allocation module (102), adaptive frequency scaling unit (103), workload prediction engine (104), thermal control system (105), and performance monitoring dashboard (106). The system autonomously regulates power consumption and temperature based on workload conditions, optimizing performance and ensuring energy-efficient operation across multi-core processors.

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