**1.system architecture**

mcu equipment interface peripheral bus

**2.EDA(Electronic design automation)**

①schematic&PCB&CAM:altium cadence cam350

②simulation:proteus multism ADS pspice apsim

③algorithm design:matlab

④MCU/DSP programming:keil IAR CCS

⑤PLC development:quartus

⑥product-level simulation:hfss ansys

⑦diagramming:visio