

EmbestUniversity®

Hardware + Software + Courseware



EmbestUniversity® is a full package for laboratory exercises focused on embedded system development, including evaluation boards, development tools, laboratory exercises codes and teaching materials. It is just ready for teaching aids for universities and other educational institutes. It can be used as a lab teaching platform solution for embedded and real-time embedded systems at undergraduate or graduate level with majors in Computer Science, Computer Engineering, Automation Control, Electrical Engineering or for professional engineers. University courses which focus on computer architecture, embedded systems development or general programming can benefit from using EmbestUniversity®. Students will use up-to-date tools and technology.

Evaluation board

The recommended evaluation board in EmbestUniversity® package is Embest S3CEV40 board, which is based on Samsung S3C44B0X 16/32-bit RISC microcontroller (ARM7TDMI). Many laboratory exercises codes with teaching materials are provided with this board. Further more, we also have uC/OS-II and ucLinux porting on this board. It is really convenient for teachers and helpful for students.

Other evaluation boards from e.g. Philips, Atmel and ST Microsystems are available as well. We provide plenty of sample codes with all of these boards, but the teaching material is based on the S3CEV40 board.

Development tools

The recommended development tool in EmbestUniversity® package is Embest IDE for ARM development tools suite I. Embest IDE for ARM tools suite includes IDE, editor, compiler & linker, debugger, project manager, JTAG emulator, flash programmer and other tools. It is a complete tools solution for embedded system development based on ARM. Embest IDE for ARM tools are easy enough to be used in both graduate and undergraduate programs. Embest IDE is a high-performance, robust product. It provides strong features for debugging, editing and project management.



Teaching materials

Embest provides complete teaching materials with EmbestUniversity[®] package, including laboratory exercise codes, user manuals of boards and tools, laboratory exercises book, etc.

The laboratory exercises book is named "Embedded System Development and Labs". This book is based on the Embest S3CEV40 board. The Labs include five parts:

1. basic labs for embedded development
2. basic device interfacing labs
3. complex human-machine interfacing labs
4. communication and voice interface labs
5. embedded RTOS porting and application development

These five parts have 22 Labs in total. The labs increase in their difficulty as the book progresses through more materials. The labs are very practical and target real world applications. The readers can quickly master the skills that are needed to develop real projects. The purpose of this book is to develop the students' creation ability, design ability, real world engineering project development ability. This lab manual can be used as a reference book for embedded system development based on ARM. We provide this book in PDF file on CD.

University customers

Embest Info & Tech Co., LTD. is an ARM ATC (Approved Training Centre). The EmbestUniversity[®] package is used in the ATC courses given by Embest to many students and engineers. EmbestUniversity[®] package is also used by many universities and colleges around the world, e.g.: Australia, California, Canada, China, Colombia, Florida, Ireland, Hong Kong and Russia.

Reference books

- [1] Jean. L. Labrosse, MicroC/OS-II, CMPBooks, 2002.
- [2] David Seal, ARM Architecture Reference Manual, Second Edition, Addison-Wesley, 2001

Order Information

Special rebates are available for universities and other educational institutes.
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