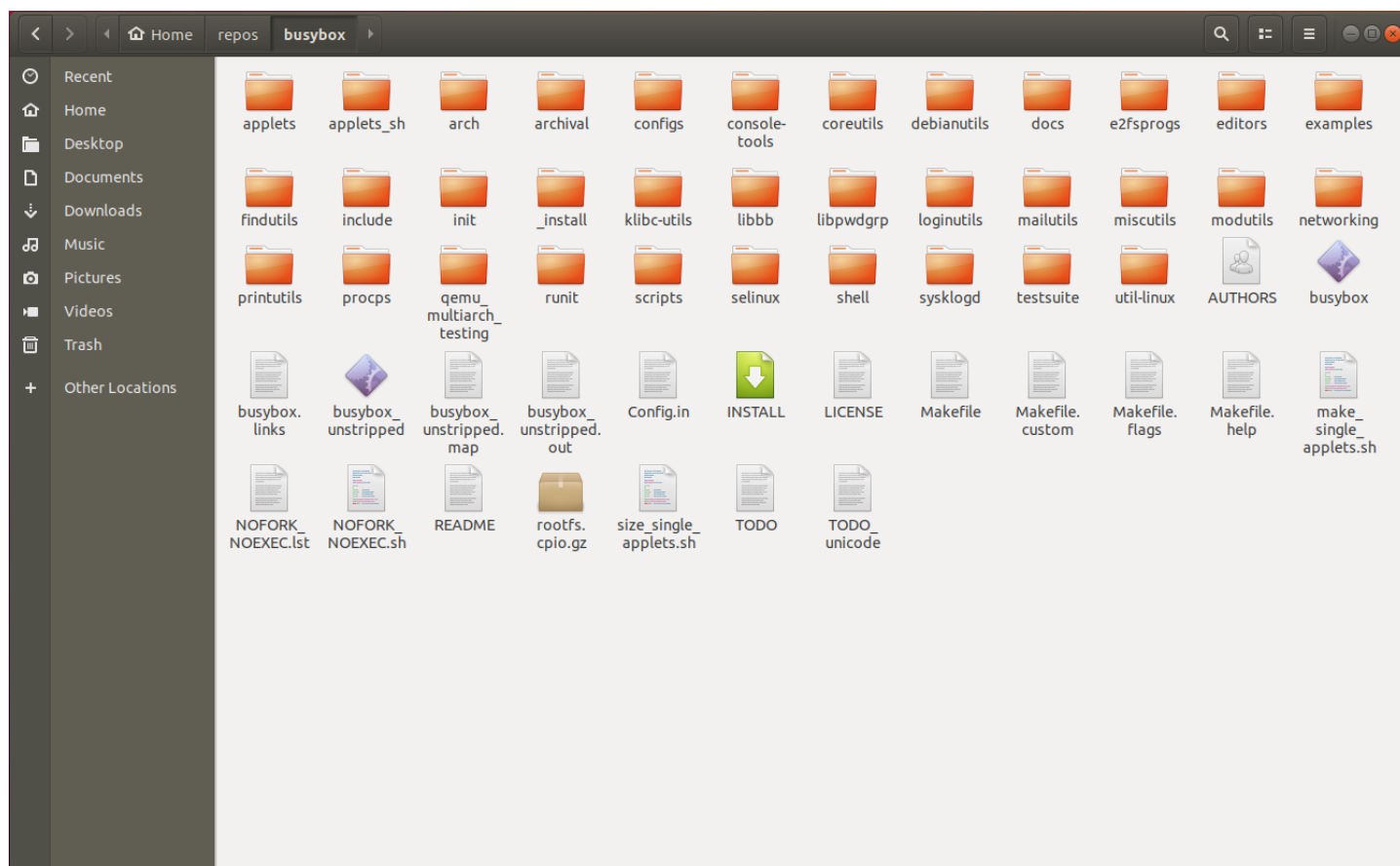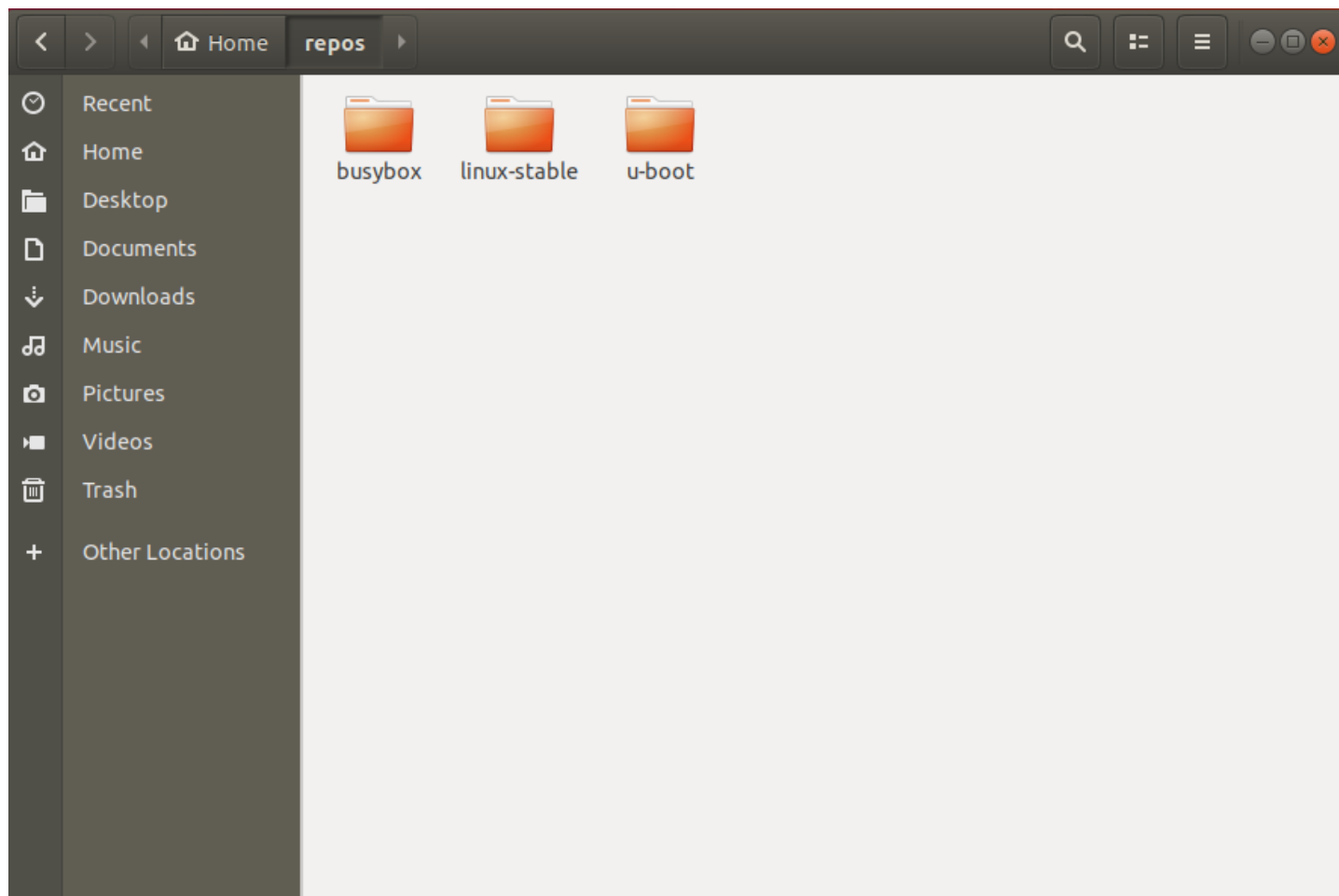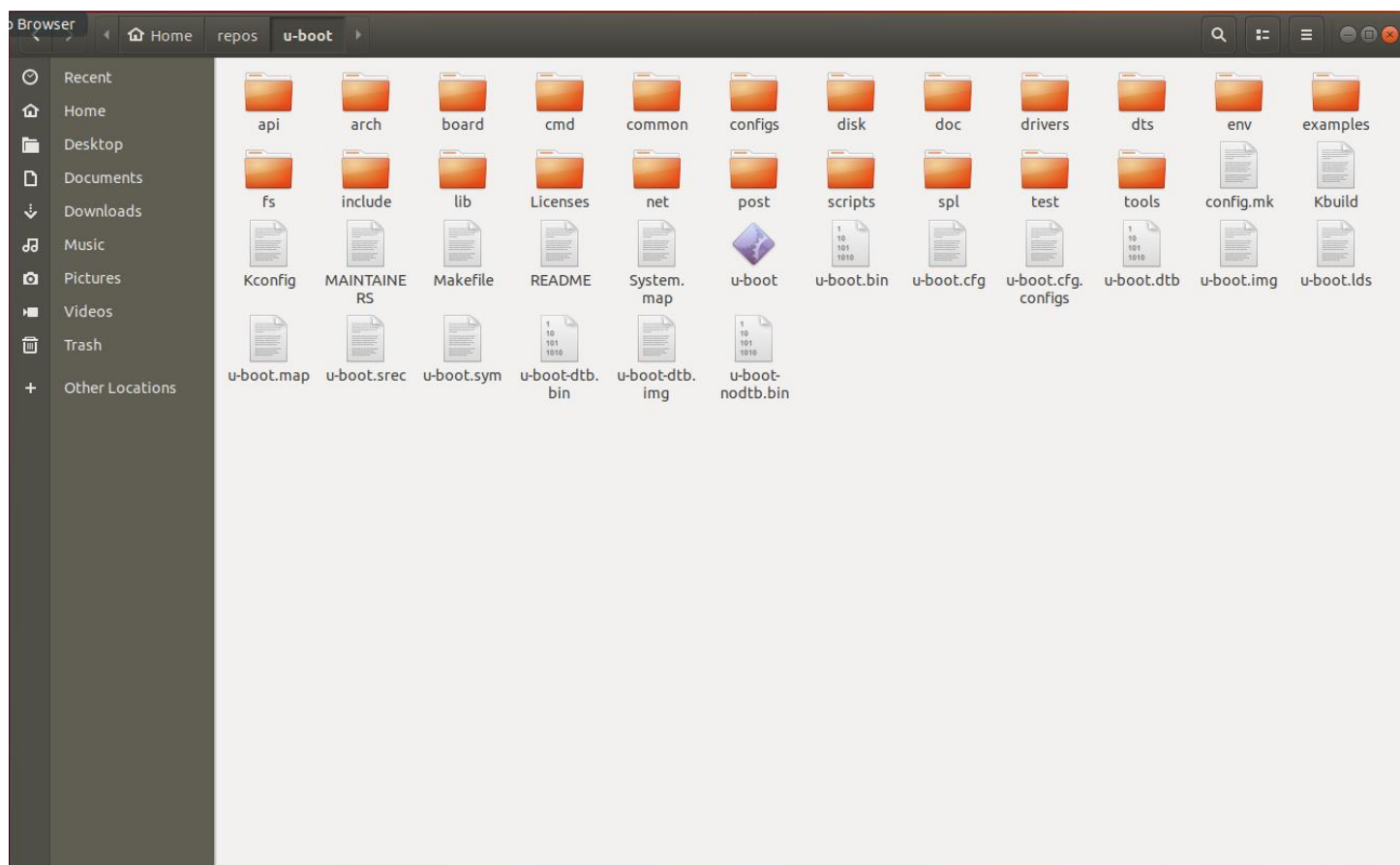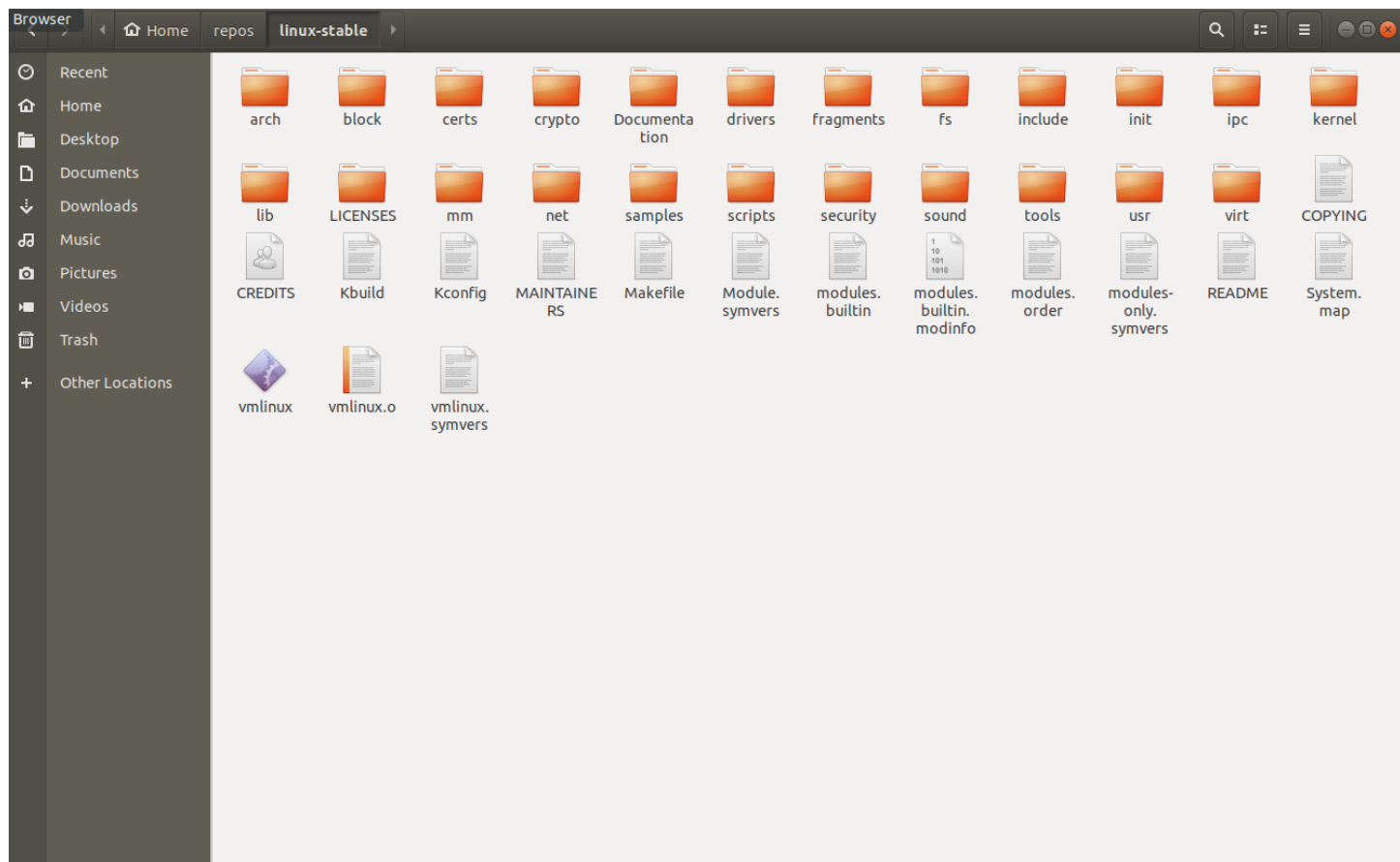Національний технічний університет України
«Київський політехнічний інститут імені Ігоря Сікорського»
Факультет інформатики та обчислювальної техніки
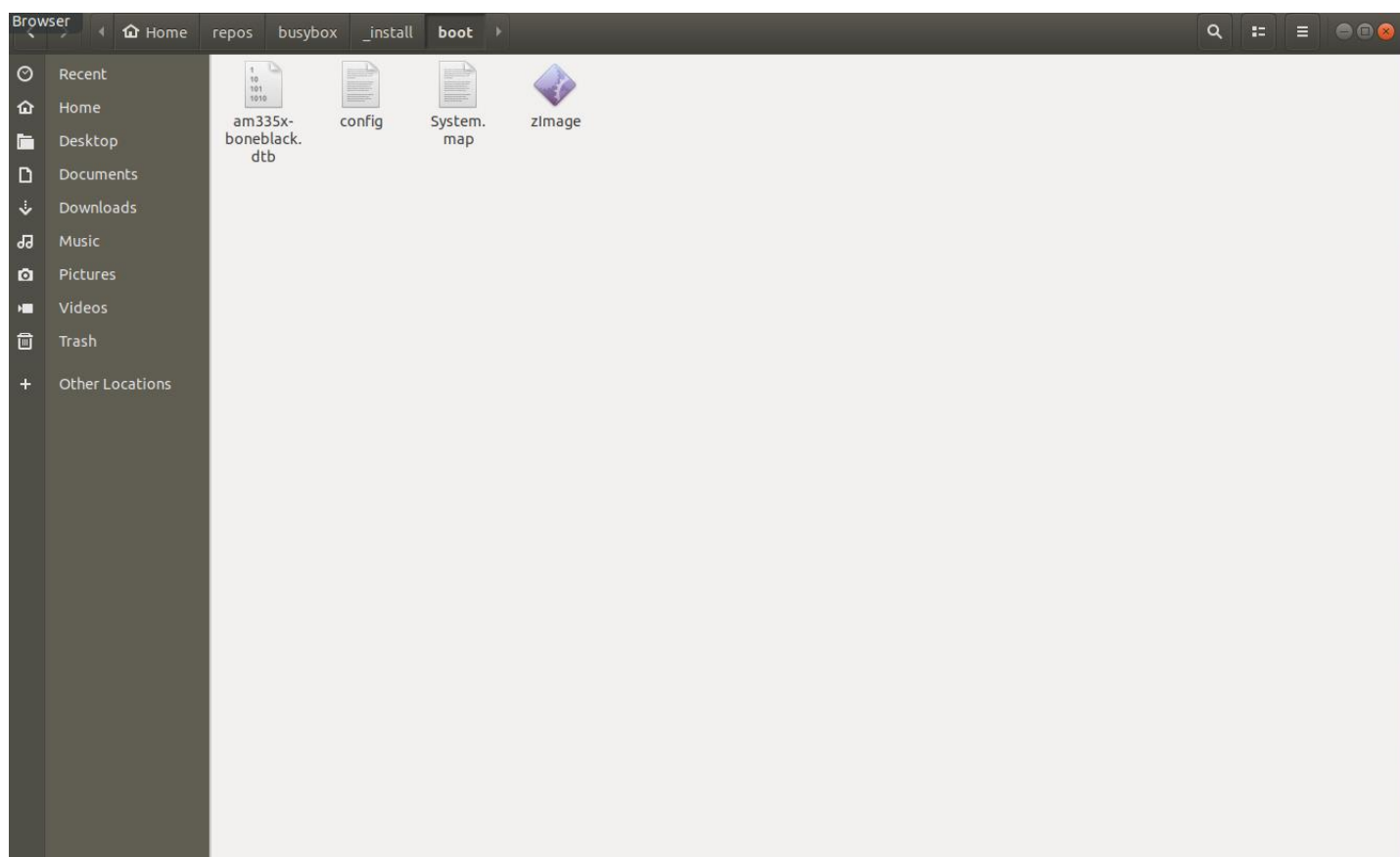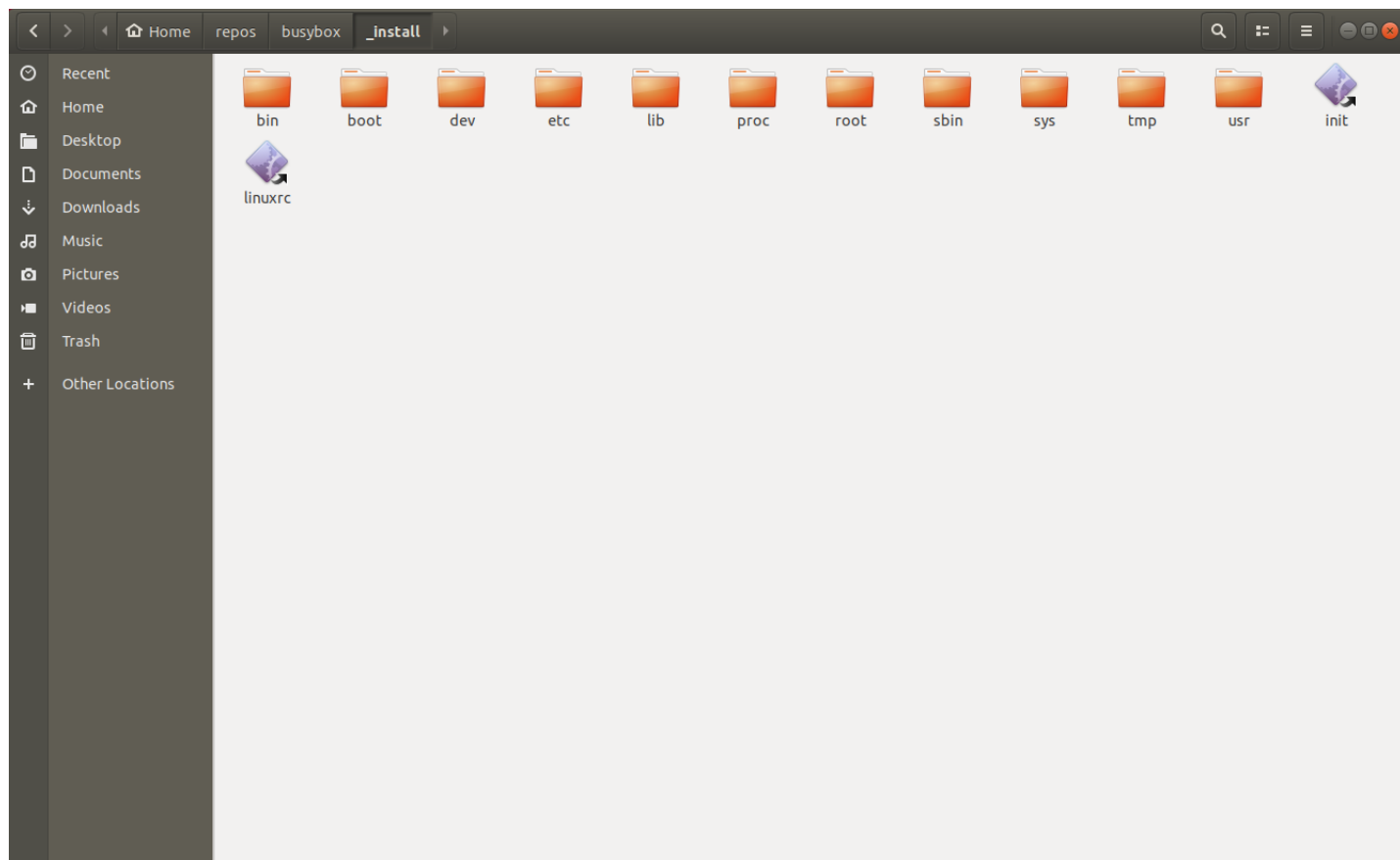Кафедра обчислювальної техніки
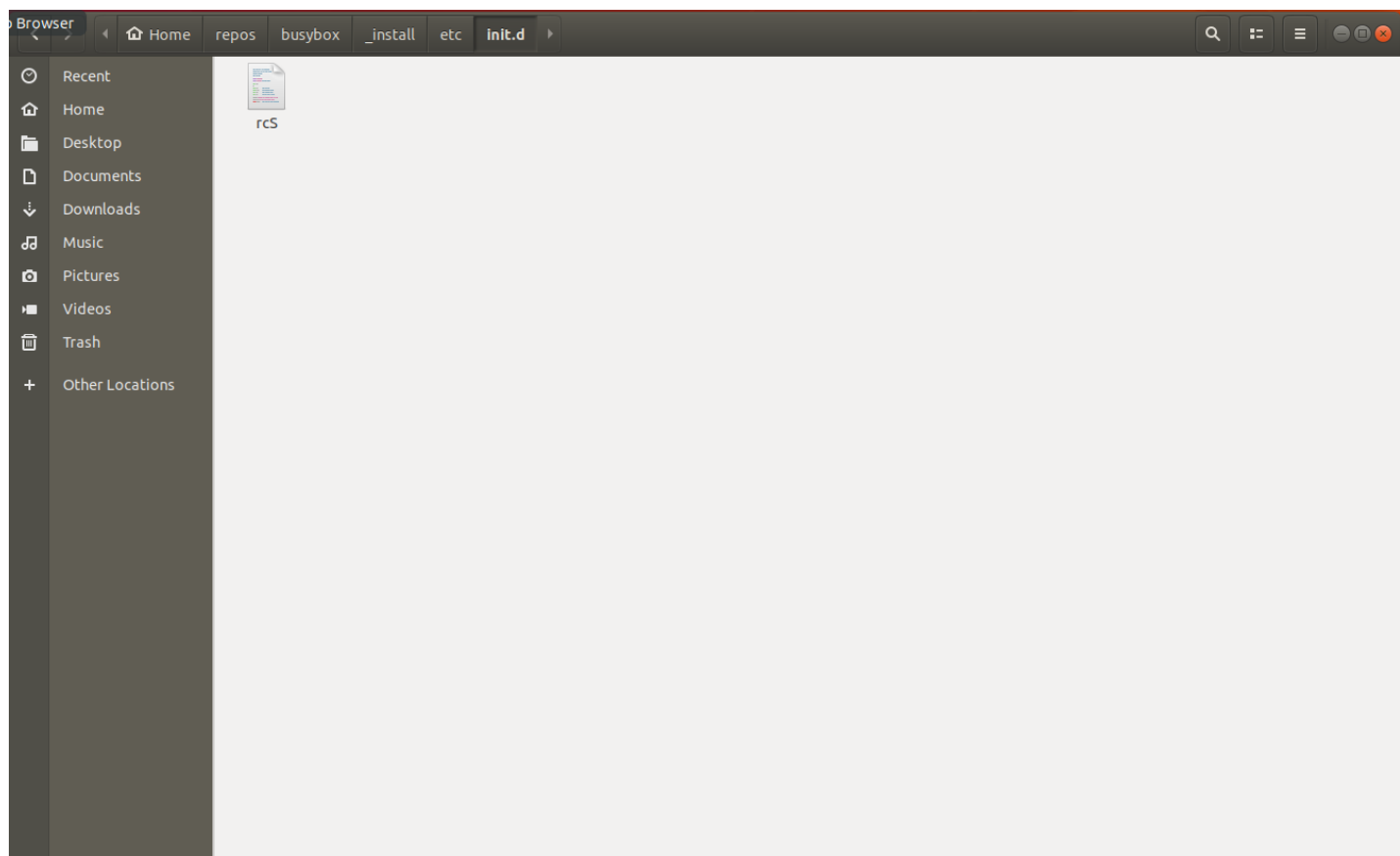
Архітектура комп'ютерів-2. Процесори
Лабораторна робота №4

Виконала:
студент групи ІВ-91
Липчак Дмитро
Перевірив:
пос. Нікольський С. С.

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vmlinux | vmlinux.o | vmlinux.symvers

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Kconfig | MAINTAINERS | Makefile | README | System.map | u-boot | u-boot.bin | u-boot.cfg | u-boot.cfg.configs | u-boot.dtb | u-boot.img | u-boot.lds

u-boot.map | u-boot.srec | u-boot.sym | u-boot-dtb.bin | u-boot-dtb.img | u-boot-nodtb.bin

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am335x-boneblack.dtb   config   System.map   zImage

bbb.cfg

rcS

```
Please press Enter to activate this console.
/ # uname -a
Linux (none) 5.10.84 #1 SMP Wed Dec 8 09:29:48 PST 2021 armv7l GNU/Linux
/ # ls -l
total 0
drwxrwxr-x    2 1000      1000              0 Dec  8 18:48 bin
drwxrwxr-x    2 1000      1000              0 Dec  8 18:52 boot
drwxrwxr-x    3 1000      1000              0 Dec  8 19:00 dev
drwxrwxr-x    3 1000      1000              0 Dec  8 18:55 etc
lrwxrwxrwx    1 1000      1000             11 Dec  8 18:52 init -> bin/busybo
x
drwxrwxr-x    3 1000      1000              0 Dec  8 18:54 lib
lrwxrwxrwx    1 1000      1000             11 Dec  8 18:48 linuxrc -> bin/bus
ybox
dr-xr-xr-x   88 root      root              0 Dec  8 19:00 proc
drwxrwxr-x    2 1000      1000              0 Dec  8 18:49 root
drwxrwxr-x    2 1000      1000              0 Dec  8 18:48 sbin
dr-xr-xr-x   12 root      root              0 Dec  8 19:00 sys
drwxrwxr-x    2 1000      1000              0 Dec  8 18:49 tmp
drwxrwxr-x    4 1000      1000              0 Dec  8 18:48 usr
/ # dmesg | grep init
[    0.000000] mem auto-init: stack:off, heap alloc:off, heap free:off
[    0.000000] Memory: 400800K/524288K available (13312K kernel code, 2258K
 rwdata, 5456K rodata, 2048K init, 426K bss, 57952K reserved, 65536K cma-re
served, 0K highmem)
[    0.000000] random: get_random_bytes called from start_kernel+0x388/0x52
8 with crng_init=0
[    0.043714] devtmpfs: initialized
[    0.070940] pinctrl core: initialized pinctrl subsystem
[    0.247125] SCSI subsystem initialized
[    1.026945] Trying to unpack rootfs image as initramfs...
[    2.485782] Freeing initrd memory: 28944K
[    2.505976] nfs4filelayout_init: NFSv4 File Layout Driver Registering...
[    2.506317] nfs4flexfilelayout_init: NFSv4 Flexfile Layout Driver Regist
ering...
[    2.677530] SuperH (H)SCI(F) driver initialized
[    2.678956] msm_serial: driver initialized
[    2.679313] STMicroelectronics ASC driver initialized
[    2.680851] STM32 USART driver initialized
[    4.957319] Run /init as init process
[    4.957766]   /init
/ # busybox --help | head -15
BusyBox v1.34.1 (2021-12-08 10:46:33 PST) multi-call binary.
BusyBox is copyrighted by many authors between 1998-2015.
```

```
BusyBox v1.34.1 (2021-12-08 10:46:33 PST) multi-call binary.
BusyBox is copyrighted by many authors between 1998-2015.
Licensed under GPLv2. See source distribution for detailed
copyright notices.

Usage: busybox [function [arguments]...]
   or: busybox --list[-full]
   or: busybox --show SCRIPT
   or: busybox --install [-s] [DIR]
   or: function [arguments]...

        BusyBox is a multi-call binary that combines many common Unix
        utilities into a single executable.  Most people will create a
        link to busybox for each function they wish to use and BusyBox
        will act like whatever it was invoked as.
/ #
```

```
/ # poweroff
/ # umount: can't unmount /: Invalid argument
swapoff: can't open '/etc/fstab': No such file or directory
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL to all processes
Requesting system poweroff
[  350.765426] Flash device refused suspend due to active operation (state
20)
[  350.765707] Flash device refused suspend due to active operation (state
20)
[  350.766146] reboot: Power down
dmch@ubuntu:~/repos/busybox$
```