# Architecture of graphics devices for PC

RNDr. Róbert Bohdal, PhD.

bohdal@fmph.uniba.sk

FMFI, Department of Algebra, Geometry and Didactics of Mathematics

room n. M114

http://flurry.dg.fmph.uniba.sk/webog/en/bohdal

# Course goals:

- Brief description of computer devices used in the computer graphics. Hardware composition and the principle of functioning.
- Devices for augmented reality (AR).

# Course syllabus:

- Display devices (CRT, LCD, OLED, ...)
- 3D display devices – (auto)stereoscopic displays, holograms, electroholograms…
- Projectors – LCD and DLP technology
- Scanners – flat, handheld a drum (CCD, CIS, PMT, …)
- 3D scanners (kinect, isense, ...)
- Printers, plotters – flat a drum (laser, inkjet, …)
- Touch panels and graphics tablets – (infrared, surface wave, capacitive, EMR, …)
- Graphics cards – OpenGL, DirectX (ATI/AMD, Nvidia)
- Head-Mounted a Optical Head-Worn displays (Occulus Rift, Google Glass, Microsoft Hololens)
- Sensors (accelerometer, gyroscope, ...)

# Grading and evaluation

- Oral exam: 2 x 50 points (2 questions)
- The final evaluation:
  "A"  90 - 100 points
  "B"  80 - 89 points
  "C"  70 - 79 points
  "D"  60 - 69 points
  "E"  50 - 59 points

# Useful links and literature

- J. D. Foley, A. van Dam: *Fundamental of Interactive Computer Graphics*

- http://www.pctechguide.com/
- http://www.howstuffworks.com/
- http://www.tomshardware.com/us