

DSP training

Benefits

- Understand visual perception
- Understand color vision
- Understand image enhancement
- Understand image sampling
- Understand image compression

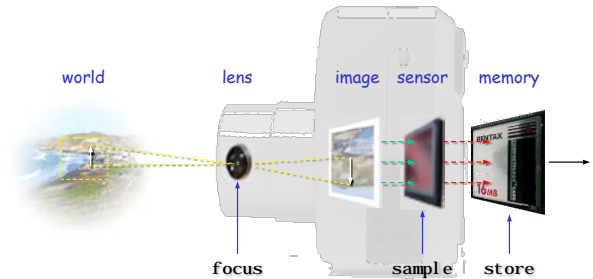


Image Processing

To use Image processing effectively for consumer products you must understand how people perceive images and video, and how to exploit that to make pictures seem better than in fact they are.

Class aims

We explain and demonstrate how people perceive images and video, and show you how techniques can be used to enhance the viewer's visual experience.

Class topics

The class covers visual perception including color, image sensors and sampling, enhancement and correction, and digital image processing.

- Optical and digital images
- Still images
- Image sampling
- Aliasing
- Image sensors
- Visual perception
- Color vision
- Color sampling
- Color spaces
- Video sampling
- Spatial frequency
- Image filtering
- Perceptual enhancement filters
- Scaling and distortion
- Still image compression
- Video image compression

Images

How optical images are sampled and digitized.

- Optical and digital images
- Image sampling
- Image sensors

Visual perception

How we perceive images and color.

- Visual perception
- Color vision
- Optical illusions
- Perceptual enhancement

Spatial frequency

Spatial frequency and the basis for lossy compression.

- Spatial frequency
- DCT analysis
- Wavelets

Image filtering

Perceptual enhancement filters.

- Image filtering
- Sharpening
- Focus
- Shading and gamma
- Color balance

Scaling and distortion

Scaling images and correcting distortion.

- Image scaling
- Correcting distortion

Compression

JPEG and MPEG compression.

- Perceptive compression
- JPEG and MPEG
- Motion compensation
- MPEG Layers and Levels
- MPEG bit-streams

Target audience

This class is aimed at programmers, engineers and managers designing consumer products which will use image processing, and who wish to fully understand and be able to apply correction, enhancement and compression.

Time and arrangements

This class takes 5 days. Check our schedule at:

www.bores.com/index_schedule.htm

It can also be presented 'on site' by special arrangement and the material can be adapted if you have specific needs.

Booking and questions

Call us by phone or send an email to book or to ask questions:

- contact Dr Chris Bore
- mobile +44 7921 153219
- email: chris@bores.com

About Us

BORES Signal Processing train managers, engineers and programmers to understand and use DSP and streaming media processing.

- established 24 years
- excellent reputation
- worldwide activities
- www.bores.com