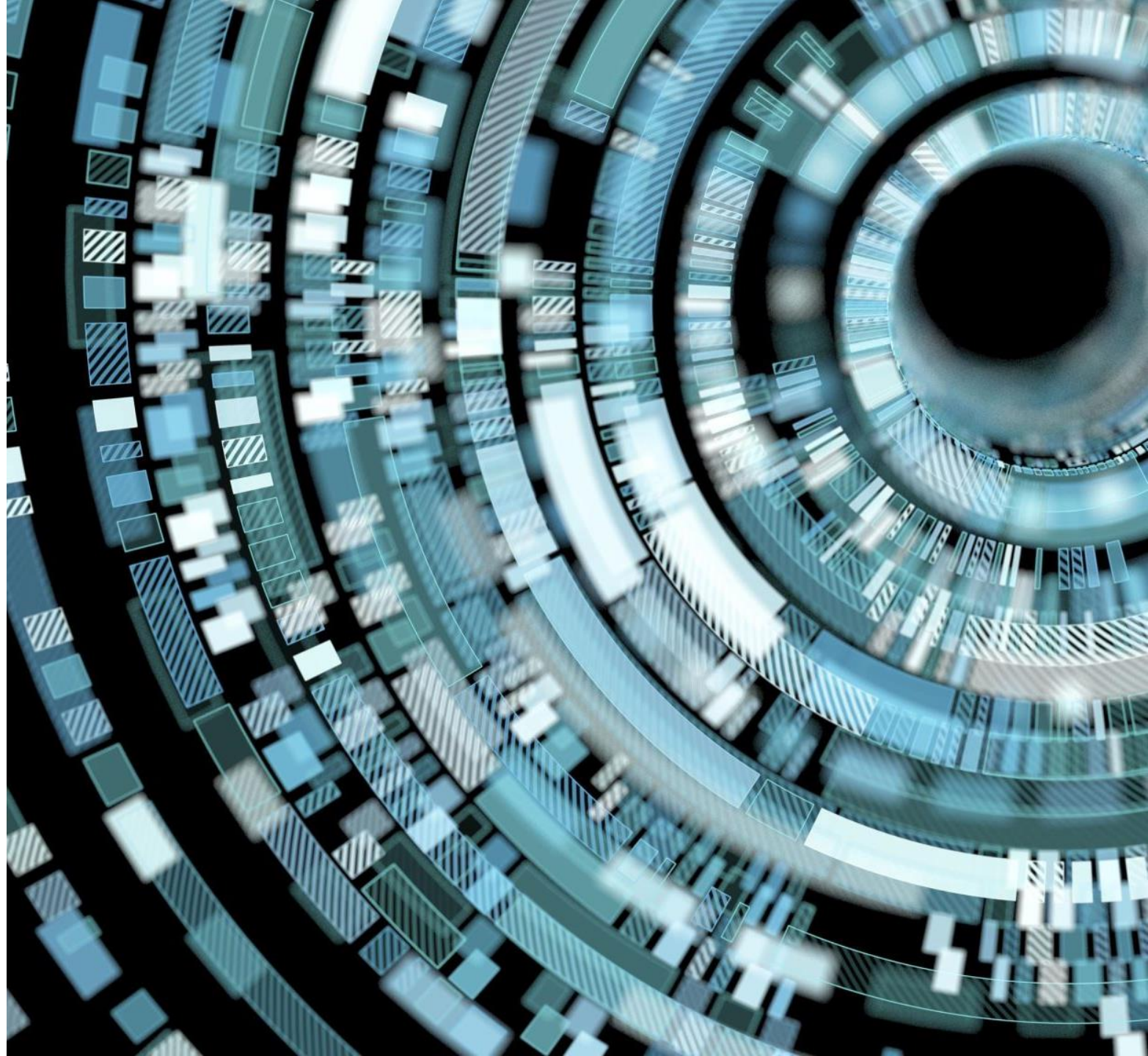


# Digital Image Processing

English taught program  
A1927

Thu 09:10~12:00

Instructor: Meng-Luen Wu





An abstract graphic on the left side of the slide, featuring concentric circles and various digital patterns like binary code and pixelated shapes in shades of blue, green, and white.

# About the instructor

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- Meng-Luen Wu
- Assistant Professor
- Joined Tamkang University since 2021.02
- Research fields
  - Artificial Intelligence
  - Image Processing
  - Computer Vision
  - Intelligent Law Systems
  - Database Web Design

A close-up, low-angle shot of a camera lens. The lens is dark and metallic, with a prominent silver-colored ring around the front element. The front element is clear, reflecting a distorted, fisheye view of a bright, greenish-blue scene, possibly a body of water or a bright sky. The background is a soft, out-of-focus bokeh of purple and blue light spots, creating a dreamy, artistic atmosphere. The text "What is Digital Image Processing?" is overlaid in a clean, white, sans-serif font, centered horizontally across the middle of the image.

What is Digital Image Processing?





What is the purpose of Image Processing?

# Image Enhancement

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# Sharpening Image

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# Find the edges

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# Denoising

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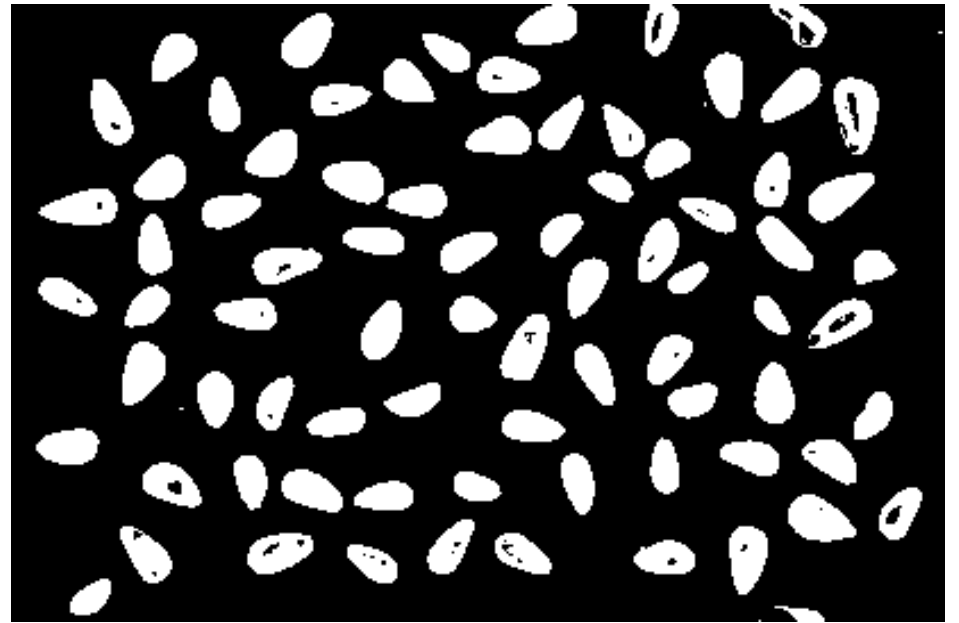
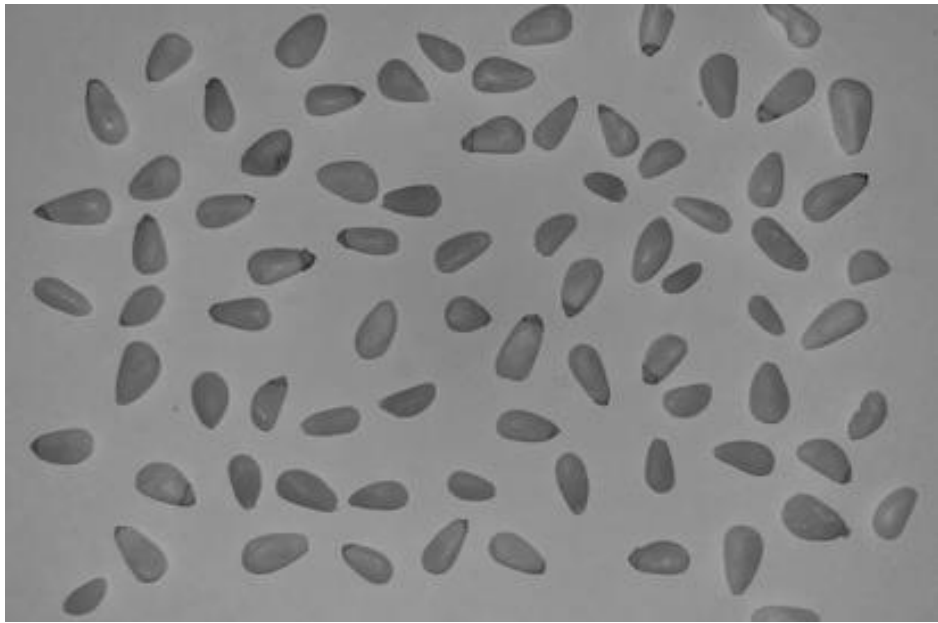
# Deblurring

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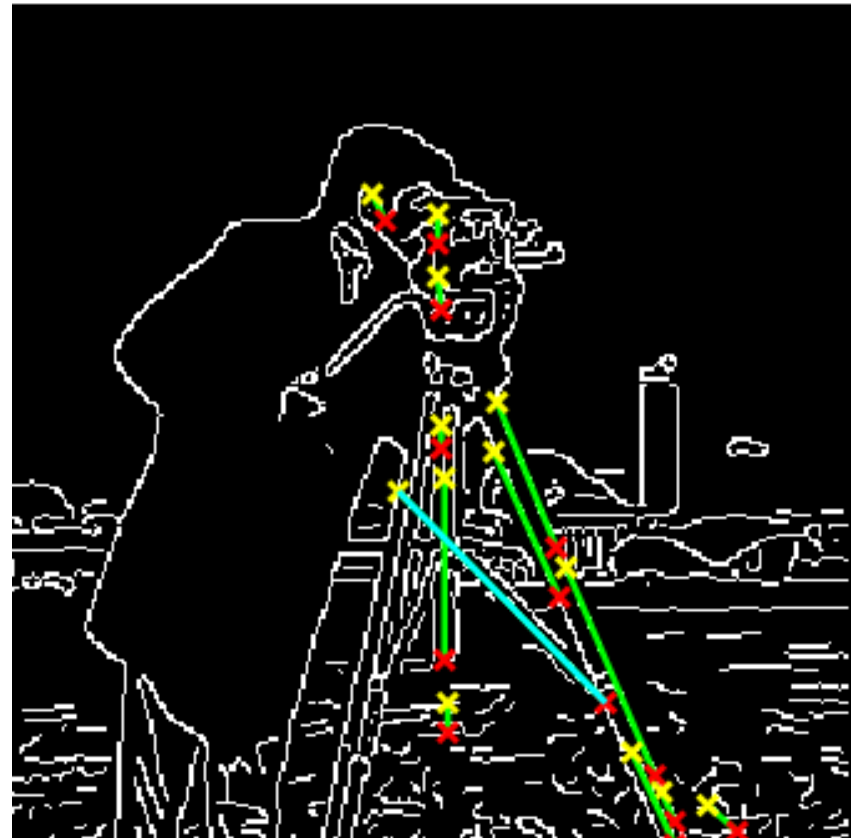
# Count the beans

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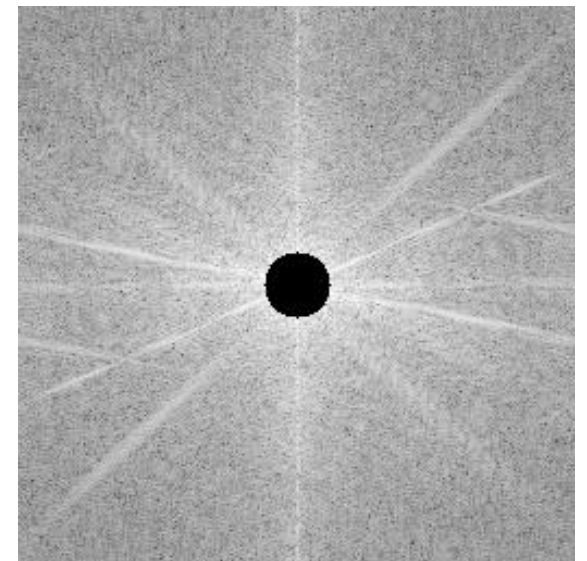
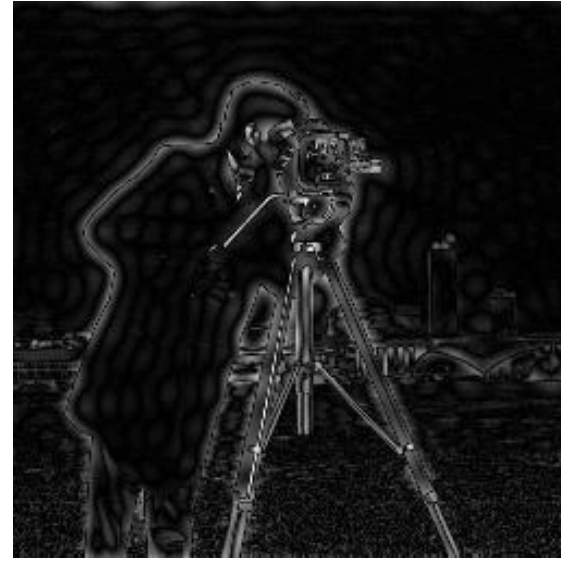
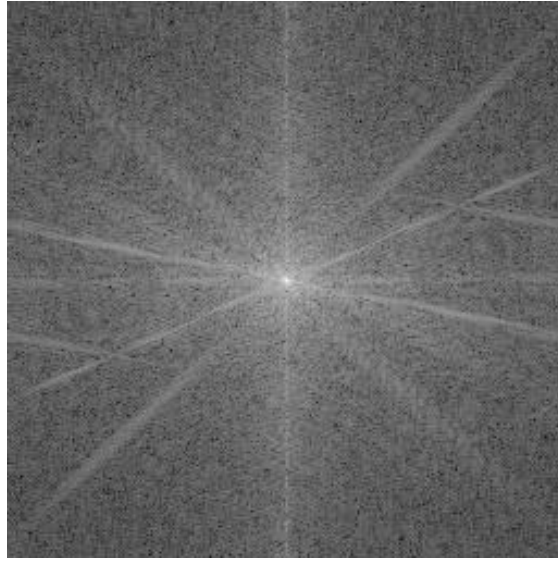


# Detect the lines

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# Operation in Frequency Domain

# Grading

Midterm 30%

Final Exam  
30%

Assignments  
& Projects  
30%

Attendance &  
Performance  
in Class 10%

## English-taught class

- This is an English-taught class.
- No Chinese in class, including asking questions.
  - You can ask questions in Chinese after class.
- If you can not understand the material in English, you can ask about the content after class.



# Exam rules

Do not copy answers from your classmates.

If the exam is announced as an “open book” test, you are free to find answers from all kinds of materials, except for the answers from your classmates.

If any two students have similar answers unreasonably. Those who copies or provides the answers will not have any grade for the exam.

The exam coverage will be announced before midterm and final exam.

# assignment rules

- Do not copy answers from your classmates.
- If any two students have similar answers unreasonably. Those who copies or provides the answers will not have any grade for the assignment.



# How to hand in your exam papers during online course



For courses using iClass, hand in your exam papers in the “Homework” section.



iClass servers are busy during exam, please additionally hand in your exam papers to [mlwutp@gmail.com](mailto:mlwutp@gmail.com) as a backup.



# ROLL CALLS

- Roll call using “numbers”
- Make up roll calls are not allowed.
- The roll call is only a reference for student performance, grade deduction will be conducted only for excessive absence.

# Textbook

- Mcandrew, Alasdair. "Digital Image Processing with MATLAB." Cengage learning
- Helps readers easily understand the elements of digital image processing
- Includes sample codes for Matlab and Python



## Textbook

- Gonzalez, R. C., and R. E. Woods. “Digital Image Processing Prentice.”
- The “bible” for digital image processing
- Includes more detail equations and formulas for digital image processing.

# Digital Image Processing



Rafael C. Gonzalez  
Richard E. Woods





•Questions?