



## **NPTEL ONLINE CERTIFICATION COURSES**

**Course Name: Deep Learning**

**Faculty Name: Prof. P. K. Biswas**

**Department : E & ECE, IIT Kharagpur**

**Topic**

**Lecture 34: Convolutional Neural Network**

# CONCEPTS COVERED

## Concepts Covered:

### ☐ CNN

#### ☐ Convolution

#### ☐ Linear Time Invariant (LTI) System

#### ☐ Linear Shift Invariant (LSI) System

#### ☐ Cross Correlation



LTI/  
LSI



# Convolutio n



# Convolutio n

-1	-2	-1
0	0	0
1	2	1

-1	0	1
-2	0	2
-1	0	1

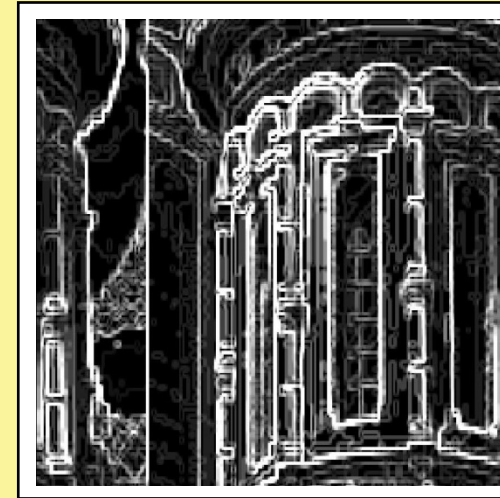
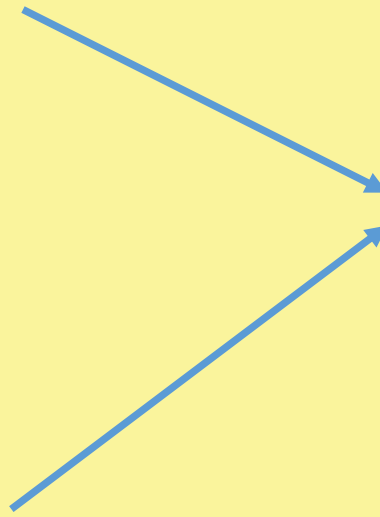


# Convolutio n



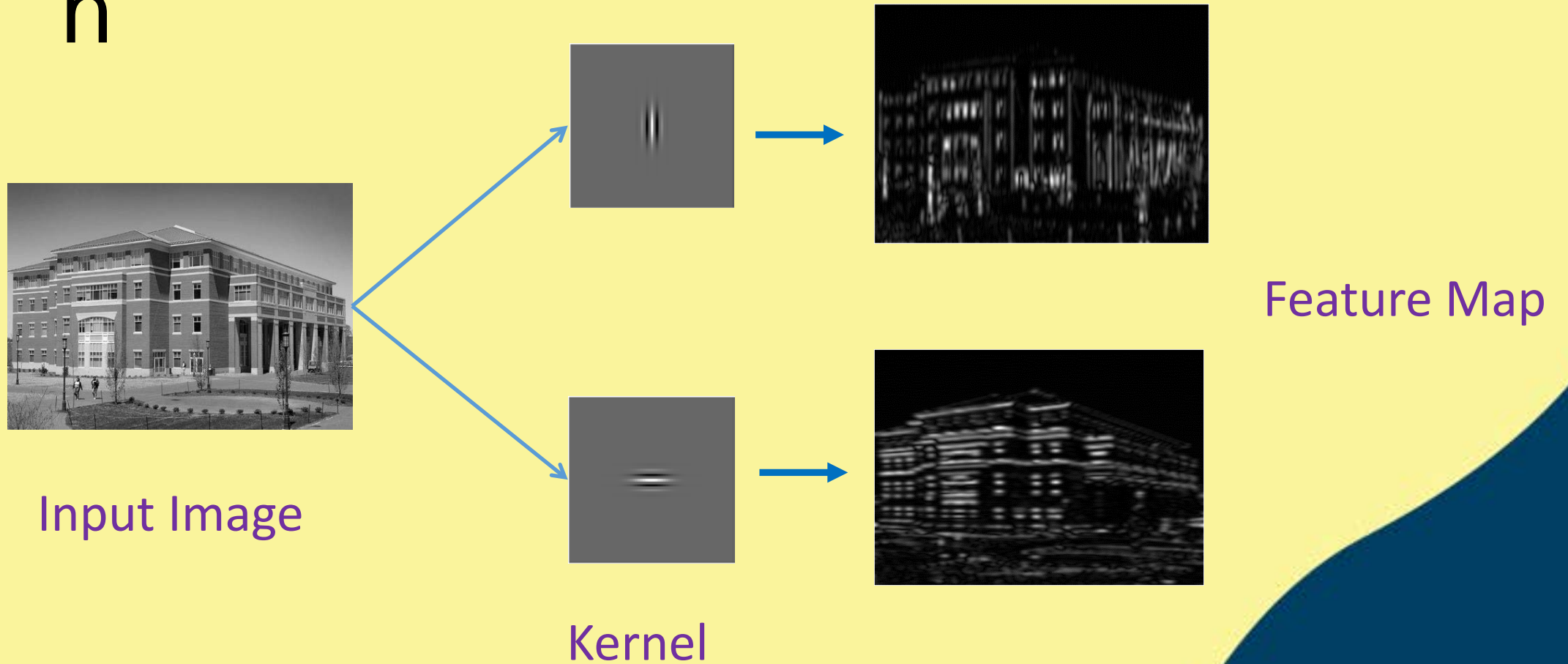
# Convolutio

n





# Convolution







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*Thank  
you*

