

Coded Computational Imaging

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Robotics Institute, CMU
MIT Media Lab



Welcome

Course WebPage :

<http://www.umiacs.umd.edu/~aagrwal/CVPR10Tutorial/index.html>

Goals

- Focus on understanding concepts in computational imaging
 - Thinking beyond pixels in ray-space
 - 4D Lightfield, Plenoptic Sampling
 - New ways of sampling the visual world
 - Multiplexing
 - Modifying the capture process to simplify the problem
 - Motion blur, Defocus blur
 - Using reconstruction algorithms and priors
 - Compressive Sensing
- What we will not cover
 - Traditional image processing, photo manipulations & editing

Speaker: Srinivasa Narasimhan

Srinivasa Narasimhan is an Associate Professor at Robotics Institute, CMU.

<http://www.cs.cmu.edu/~srinivas/>



Speaker: Amit Agrawal

Amit Agrawal is a Research Scientist at MERL.

<http://www.umiacs.umd.edu/~aagrwal/>



Speaker: Ashok Veeraraghavan

Ashok Veeraraghavan is a Research Scientist at MERL.

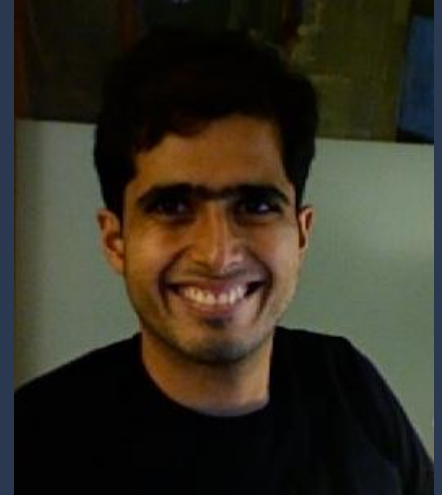
<http://www.cfar.umd.edu/~vashok/>



Speaker: **Ankit Mohan**

Ankit Mohan is a Post-Doc researcher at MIT Media Lab.

<http://web.media.mit.edu/~ankit/>



Schedule

Introduction	Srinivasa, 10 mins
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Assorted Pixels	Srinivasa, 20 mins
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Coding and Modulation in Cameras	Amit, 45 mins
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Break	10 min
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Light Fields and Applications	Ankit, 60 mins
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Break	10 min
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Computational Illumination	Srinivasa, 45 mins
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Future Trends	Amit, 15 mins
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Discussion	
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