**Compendium of IEEE-EDS Distinguished Lectures on**

**Nanoelectronics**

**Quantum Engineering of Low-Dimensional Nanoensembles**

**Downloadable Recorded Lectures (36 total of 45-50 minutes each)**

**Each of these lectures is 45-50 minutes long and resides on MediaSpace, freely downloadable by clicking on any of the URL below. For more information, please contact** **vijay.arora@wilkes.edu**

**Chapter 1: Nanoengineering Overview**

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**Chapter 2: Atoms, Bands and Quantum Wells**

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**Chapter 3: Carrier Statistics**

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**Chapter 4:**  **Nonequilibrium Carrier Statistics and Transport**

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**Chapter 5: Charge Transport**

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**Chapter 6: Nano-MOSFET and Nano-CMOS**

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**Chapter 7:**  **Nanowire Transport**

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# Chapter 8: Quantum Transport in Carbon-Based Devices

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**Chapter 9: Magneto and Quantum-Confined transport**

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**Chapter 10: Drift-Diffusion and Multivalley Transport**

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