

# ASIC Design & Verification (Certificate)

The Graduate Certificate in Application-Specific Integrated Circuits (ASIC) Design and Verification (ADV) Technologies provides students with advanced academic credentials in the algorithmic, chip, circuit, system and antenna technologies that will underpin ADV Wireless systems. Advanced silicon chips, including ASIC, power the remarkable systems we rely on every day. They serve as the foundation for everything from smartphones to wearables and from smart medical devices to autonomous cars.

## More Information

Distance Website (<https://online-distance.ncsu.edu/program/asic-design-and-verification/>)

## Eligibility

Students must meet ONE of the following requirements for admission into the ADV Graduate Certificate Program:

- Have a BS degree in Electrical or Computer Engineering from a regionally accredited four-year college or university, and have an overall GPA of at least 3.0 on a 4-point scale.
- Have a BS degree in the sciences or engineering from a regionally accredited four-year college or university with an overall GPA of at least 3.0 on a 4-point scale.
- Be a degree-seeking student in good standing in an NC State University graduate program in the sciences or engineering.

## Applicant Information

- **Delivery Method:** On-Campus, Online, Hybrid
- **Entrance Exam:** None
- **Interview Required:** None

## Application Deadlines

- **Fall:** January 9
- **Spring:** July 1

Code	Title	Hours	Counts towards
<b>Required Courses</b>			
ECE 564	ASIC and FPGA Design with Verilog		<b>12</b>
ECE 745	ASIC Verification		
ECE 748	Advanced Functional Verification with Universal Verification Methodology		
ECE 546	VLSI Systems Design		
or ECE 720	Electronic System Level and Physical Design		
<b>Total Hours</b>		<b>12</b>	

## Faculty

### Full Professors

- David E Aspnes
- B. Jayant Baliga
- Mesut E. Baran
- Salah M. A. Bedair
- Subhashish Bhattacharya
- Donald L. Bitzer
- Alper Yusuf Bozkurt
- Gregory T Byrd
- Rada Yuryevna Chirkova
- Mo-Yuen Chow
- Huaiyu Dai
- William Rhett Davis
- Alexandra Duel-Hallen
- Michael James Escuti
- Do Young Eun
- Brian Allan Floyd
- Paul D. Franzon
- Edward F. Gehringer
- John J. Grainger
- Edward Grant
- Robert Wendell Heath
- Brian L Hughes
- Iqbal Husain
- Sabre Kais
- Derek Kamper
- Ki Wook Kim
- Frederick Anthony Kish Jr.
- Robert Michael Kolbas
- Hamid Krim
- Ning Lu
- Srdjan Miodrag Lukic
- Leda Lunardi
- Thomas Kenan Miller III

Veena Misra  
Rainer Frank Mueller  
John F. Muth  
H. Troy Nagle Jr.  
Jagdish Narayan  
Arne Nilsson  
Omer Oralkan  
Mehmet Cevdet Ozturk  
Harilaos George Perros  
Douglas Stephen Reeves  
Eric Rotenberg  
Georgios Rouskas  
Xipeng Shen  
Mihail Lorin Sichitiu  
Zlatko Sitar  
Matthias F. M. Stallmann  
Daniel D. Stancil  
Michael B. Steer  
J. K. Townsend  
James Tuck  
Daryoosh Vashae  
John Victor Veliadis  
Ioannis Viniotis  
Mladen Alan Vouk  
Wenye Wang  
Jonathan Wierer  
Fen Wu  
Huiyang Zhou

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## Associate Professors

Jacob James Adams  
Dror Zeev Baron  
Michela Becchi  
Aranya Chakraborty  
Hantao Cui

Alexander G. Dean  
Paschalis Gkoupidenis  
Zhishan Guo  
Ali Gurbuz  
Sevgi Gurbuz  
Ismail Guvenc  
Khaled Abdel Hamid Harfoush  
Michael W. Kudenov  
David S. Lalush  
Edgar Lobaton  
Zeljko Pantic  
Nuria Gonzalez Prelicic  
Anderson Rodrigo de Queiroz  
David Ricketts  
Nitin Sharma  
Cranos M. Williams

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## Assistant Professors

Aydin Aysu  
Amay Jairaj Bandodkar  
Michael Daniele  
Demitry Farfurnik  
Caterina M. Gallippi  
Yaoyao Jia  
Shih-Chun Lin  
Yuan Liu  
Spyridon Pavlidis  
Bradley Galloway Reaves  
Vijay Shah  
Muhammad Shahzad  
Wenyuan Tang  
Chau-Wai Wong  
Tianfu Wu  
Chenhan Xu  
Man Ki Yoon

Kaixiong Zhou

Wesley E. Snyder

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## Practice/Research/Teaching Professors

Jordan Besnoff

Gregory Edward Bottomley

Laura J Bottomley

James Paul Dieffenderfer

Robert Joseph Evans

John Gajda

Rachana Ashok Gupta

Seth E. Hollar

Douglas C. Hopkins

Fu-Chen Hsaio

Andrew J. Rindos III

Steven D. Jackson

Robert Dwight Oden Jr.

Bongmook Lee

David Lee Lubkeman

Hatice Orun Ozturk

Tania Milkova Paskova

James Lee Reynolds

Elena Nicolescu Veety

Leonard Wilson White

Donna G Yu

Wensong Yu

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## Adjunct Faculty

Mihail Devetsikiotis

Yan Solihin

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## Teaching Associate Professors

Mihail Cutitaru

Frederick J. Livingston

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## Professors Emeritus

George F. Bland

John R. Hauser

Wilbur Carroll Peterson

Winsor E. Alexander PhD

Tildon H Glisson Jr

Michael A. Littlejohn

Carlton M. Osburn

Sarah Ann Rajala