

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
Required Courses		12
ECE 564	ASIC and FPGA Design with Verilog	
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	
Total Hours		12

Faculty

Full Professors

Harald Ade

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

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 Vashaei

John Victor Veliadis

Ioannis Viniotis

Mladen Alan Vouk

Wenye Wang

Jonathan Wierer

Fen Wu

Huiyang Zhou

Associate Professors

Jacob James Adams

Dror Zeev Baron

Michela Becchi

Aranya Chakraborty

Stanley Cheung

Alexander G. Dean

Sevgi Gurbuz

Ali Gurbuz

Ismail Guvenc

Khaled Abdel Hamid Harfoush

Michael W. Kudenov

David S. Lalush

Edgar Lobaton

Zeljko Pantic

Nuria Gonzalez Prelcic

Anderson Rodrigo de Queiroz

David Ricketts

Nitin Sharma

Cranos M. Williams

Assistant Professors

Aydin Aysu

Amay Jairaj Bhandodkar

Michael Daniele

Demetry Farfurnik

Caterina M. Gallippi

Yaoyao Jia

Shih-Chun Lin

Yuan Liu

Jianqing Liu

Spyridon Pavlidis

Bradley Galloway Reaves

Muhammad Shahzad

Wenyuan Tang

Chau-Wai Wong

Tianfu Wu

Chenhan Xu

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

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

Professors Emeritus

George F. Bland

John R. Hauser

Wilbur Carroll Peterson

Winser E. Alexander PhD

Tildon H Glisson Jr

Michael A. Littlejohn

Carlton M. Osburn

Sarah Ann Rajala

Wesley E. Snyder

Adjunct Faculty

Mihail Devetsikiotis

Yan Solihin

Teaching Associate Professors

Mihail Cutitaru

Frederick J. Livingston