

# ADMISSIONS OPEN FALL 2022

# MS Electrical Engineering Specialization in Integrated Circuits (IC) & Systems



# "A Training from Idea to Product Design"

Department of Electrical Engineering at FAST-NUCES ISB offers an MS program with expertise in Integrated Circuits and Systems .Pioneer and most mature IC Design MS program in Pakistan, student will do the real-world tape out from project conception to the working silicon microchip.

# WHY INTEGRATED CIRCUITS (ICs) DESIGN?

- · High demand for skilled IC designers in global 500 Billion \$ industry
- · Recent IC design center established in the Public Sector Organizations.
- More than six IC startups in Pakistan over the last two years.

# WHY from FAST NUCES?

- FULL Tuition Fee Waiver & 25000 per month stipend and hostel allowance sponsored by GS Micro Electronics (GSME), a Silicon Valley Company. (<a href="https://gsme.com">https://gsme.com</a>)
- GSME intent to hire all graduates after completion of first two semester of course work.
- First and most established MS IC design program in Pakistan with international recognition and having licensed Cadence tools suite (worth: US\$ 35000/-) and 28nm, 65nm, and 130nm TSMC PDKS.

## Feedback from Alumni and Industry

- The courses were specifically designed to provide the students with a strong knowledge of electronics and IC design skills. (Dr. Nasir, Sr Director, NECOP)
- This program is perfect for Engineers seeking in-depth training from concept to tape-out in analog and digital IC design. (Aziz ur Rehman GM, NECOP)
- One thing I must say! After working with the faculty, if you put your whole effort too, you will be a practical Chip designer. (Hamza Saleem, MS IC)
- The program offered me a variety of skills including design, plan, management, economy, and art of designing practical Integrated circuits, (M Usman, MS IC)

# Teaching and Technical Staff

### Prof. Dr. Rashad Ramzan

M.S. Royal Institute of Technology Stockholm, Germany Ph.D. Linkoping University, Sweden Professor at Department of Electrical Engineering FAST, NUCES, ISB.

#### Dr. Hassan Saif

M.S. & Ph.D. Sungkyunkwan University, South Korea.
Asst. Professor at Department of Electrical Engineering FAST, NUCES, ISB.

# Engr. Hamza Atiq MS (IC Design ), Design Engineer FAST, NUCES, ISB.

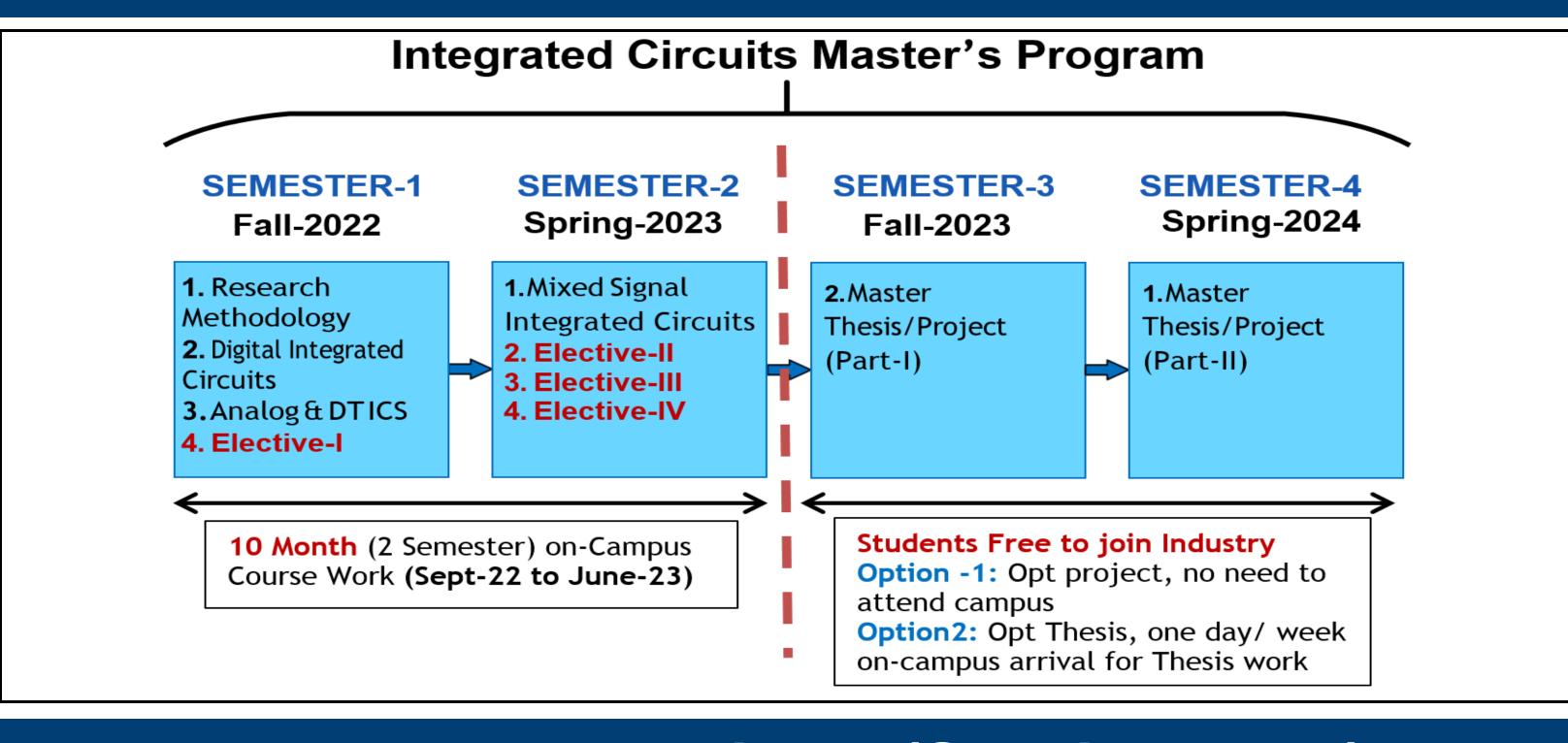
Engr. Ali Sabir Lab Engineer FAST, NUCES, ISB.

# PROGRAM DETAILS

 For more details about MS IC design and our research group please visit <a href="http://isb.nu.edu.pk/rfcs2/">http://isb.nu.edu.pk/rfcs2/</a>

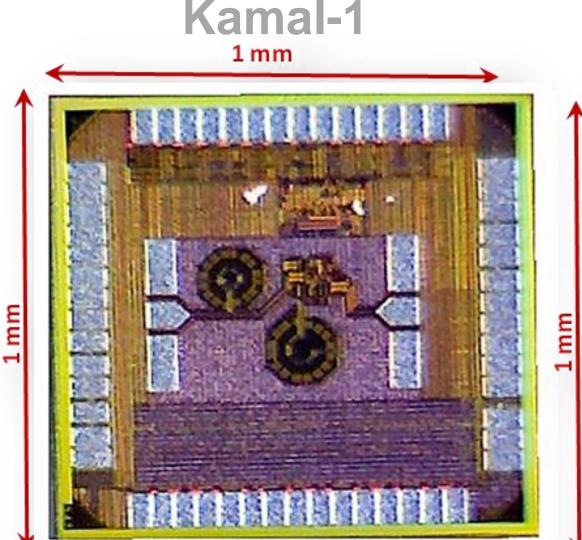
Info: hassan.saif@nu.edu.pk; Hamza.atiq@nu.edu.pk

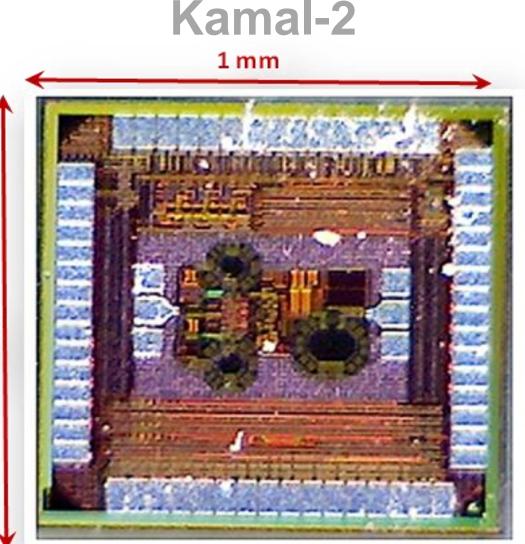
### PROGRAM AND COURSES OUTLINE

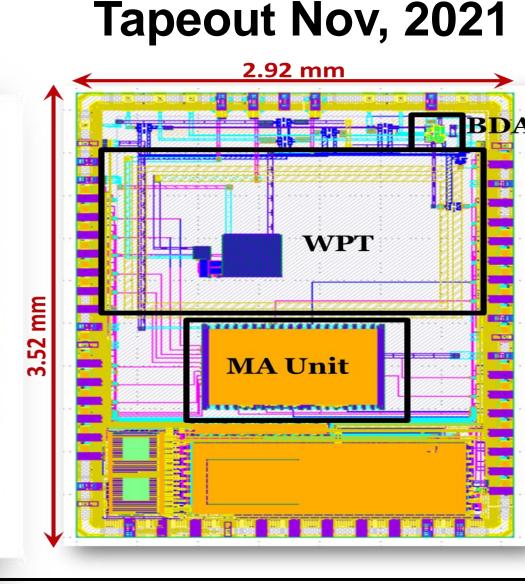


# 12 Tapeout Projects (Session-2021)

LNA, Approximate ALU, Phase Shifter, Turboelectric Energy Harvester and more TSMC 65nm Tapeouts Sept,2021 PICO 130nm







### **ELIGIBILTY**

- Bachelor from PEC recognized University in: (Min CGPA=2.0)
- -Electrical Engineering
- -Electronics Engineering
- -Telecommunication Engineering
- -Computer Engineering

# Scholarships Criteria

**Selection Procedure** 

**Step1:** NUCES MS EE Admission Test GAT or GRE.

**Step2:** NUCES, Islamabad IC Design Lab Test/Interview

### HOW TO APPLY

Apply Online at <a href="http://admissions.nu.edu.pk/">http://admissions.nu.edu.pk/</a>

**Application Deadline: 24th July 2022** 

# Sponsored By GSMICR® ELECTRONICS

