
PERSONAL DETAILS

AAKASH PATIL

Final Year Under Graduate (Dual Degree)

Department: Electrical Engineering

Specialization: Microelectronics

Present Address: 173, Hostel-5, IIT Bombay

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EDUCATION

Examination	University	Institute	Year	Performance
Graduation	IIT Bombay	IIT Bombay	2011	8.66 /10 (till 9 sem)
12 th	Maharashtra State Board	S. V. Jr. College, Mumbai	2007	90.50 % (PCM-94%)
10 th	Maharashtra State Board	R.C.F. Sec. School, Alibag	2005	85.20 %

ACADEMIC PROJECTS

Class E/F RF Power Amplifier (Dual Degree Thesis Project)

[ongoing]

- Aimed at design of CMOS Integrated RF Power Amplifier Chip for Bluetooth
- Studied the working and merits of hybrids of Class E with different Class F⁻¹ variants
- Designed the Schematic and Layout of various hybrids

Electronic Design Lab Projects

[2010]

- Developed a instrument which can acquire Electromyogram signals by using non-invasive sensors
- Developed a novel keypad using strain gages which sense deflection pattern in pad

VLSI Design Course Mini-Projects

- Differential Opamp inclusive of bias-generation and common-mode feedback
- Thermometer-To -Binary Encoder with better bubble-error tolerance
- Time-Interleaved SAR ADC with low-power capacitor-array switching procedure

Other Microelectronics Courses

- System level design courses with mini-projects based on Verilog/VHDL
- Device level courses with mini-projects of NMOS design using process and device simulators

INTERNSHIP

Cosmic Circuits Pvt. Ltd., Bangalore

[May-Jul 2010]

- Worked-out the feasibility of using IIR filters as option to FIR filters being used in compant till-date
- Applied theory to design IIR filters for touch-screen and Audio applications

Bit Mapper Integration Technologies Pvt. Ltd., Pune

[Dec 2010]

- Proposed architecture and scheduling scheme suitable for Digital Processing System
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SCHOLASTIC ACHIEVEMENTS

- Secured All India Rank 182 among more than 2.5 lakh students appeared for IIT-JEE 2007

Olympiads

- Placed in National Top 1% students in stage-1 (NSEP 2006) and selected for INPhO 2007 (Physics)
- Successful at stage-1(RMO 2006) and selected for INMO 2007 (Maths)
- Placed in Statewise Top 1% students in stage-1 (NSEC 2006) (Chemistry)

Scholarship Examinations

- National Talent Search (NTS) Scholarship (awarded to 1000 students) by NCERT in 2005
- State Scholarship for securing 5th and 15th rank in state in MTSE in 2004 and 2003 respectively

OTHER ACTIVITIES

Sports

- State level player in Table Tennis during RCF school years
- District winner in athletics during RCF school years

Brain-teasers

- Regular participant in various online competition
- Secured high rankings in Indian Puzzle and Sudoku Championship (IPC & ISC)

SOP for ASMP Program

Towards the end of IIT days, it would be nice to know what's lying there for me outside IIT world. And I being placed in TSMC, someone who has been there in semiconductor industry for years would be the right person to provide me the pre-exposure to the industry before I step-in.

About my career aspirations, I always wanted to work on final product design. But while making products as part of electronic design lab, I always wonder why I have select ICs with trade-off; and slowly my interest changed towards transistor-level design. I would like to work at transistor-level for 10 yrs before going to higher design level. (may be SoC will be well established till then, resulting into overlap of all levels of design).

I would have liked to start as an IC designer, but was placed in TSMC. But I (have to) think, working closely with fab would give me better idea of VLSI design flow and would also put me in better position to apply to chip manufacturing companies, a year or two later.
