TANU HARI DIXIT

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OBJECTIVE

- In anticipation of an opportunity providing intellectually challenging work in the field of electronics for proving and enriching my knowledge and skills.

EDUCATION

Indian Institute of Technology (BHU), Varanasi   **July 2013 – Current**

- B. Tech. in Electronics Engineering (Current CGPA: 9.64)

Semester	I	II	III	IV	V	VI	VII	VII
SGPA	9.42	9.54	9.70	10.00	9.36	9.77	9.34	-
CGPA	9.48		9.66		9.64		9.60	

St. Mary's Convent Inter College, Lucknow   **2012**

- Indian School Certificate (ISC) (Percentage: 96.0%)

St. Mary's Convent Inter College, Lucknow   **2010**

- Indian Certificate of Secondary Education (ICSE) (Percentage: 94.6%)

SKILLS AND INTERESTS

- Languages: Basics of C, Elementary Python.
- Technologies: Cadence (Virtuoso), MATLAB, LS-SVMlab Toolbox, Flask, BeautifulSoup, PyQt4, Arduino.
- Areas of Interest: Hardware Security, Analog Design, Computer Architecture, Microprocessors, Open source development, Cryptography.

PROJECTS

DC Offset Calibration DAC   **Texas Instruments**   **May 16-July 22, 2016**

- Designed a low noise DAC to remove the DC offset accumulated in direct-conversion receivers.
- Used Cadence (Virtuoso) to simulate the design and tested INL, DNL, noise, output impedance and layout considerations.

Power attack on Joye's Ladder   **IIT Kharagpur**   **May 14- July 8, 2015**

- Implemented a Template power attack on a modular exponentiation called Joye's Ladder for the public key cryptosystem, RSA.
- Our research paper 'Template attack on SPA and FA resistant implementation of Montgomery Ladder' got accepted in the IET (Institution of Engineering and Technology) Journal under the IFS category.

Journey Planner   **IIT BHU**   **Jan-Mar, 2015**

- Collaborated to make an API(Application Programming Interface) that works as a journey planner.
- It's salient features include weather prediction, sightseeing and hotel recommendations, city, state and hotel reviews, availability of trains and flights, map features.
- The back-end development was done using Python, Flask and Beautiful Soup and front-end using PyQt4.

Grid Solver Robot   **IIT BHU**

- Collaborated to design and code grid solver robot, that follows line using IR sensors.

ACHIEVEMENTS

- Co-author for a research paper 'Template attack on SPA and FA resistant implementation of Montgomery ladder' accepted in the IET Journal (IFS category).
- Selected for the IASc-INSA-NASI Summer Research Fellowship, 2015, under the Indian Academy of Sciences.
- Qualified IIT-JEE 2013 with an All India Rank of 1836.
- Secured a Distinction in Mathematics in 2009 by The University of New South Wales – International Assessments for Indian Schools.
- Secured an All India Rank of 1671 and school rank 1 in 13th National Science Olympiad, conducted by the Science Olympiad Foundation (SOF).
- Secured an All India Rank of 2729 and school rank 2 in 4th International Mathematics Olympiad, 2010.

EXTRA CURRICULAR ACTIVITIES

- Co-ordinated 'Continuum' in Udyam, 2016, IIT BHU, an analog electronics based event.
- Stood 1st in Code42Day, Udyam, 2015, IIT BHU, the problem statement of which required the designing of an API (Application Programming Interface).
- Co-coordinated GridXplorer, Technex, 2015, IIT BHU.
- Participated in Grid Mania, Technex, 2014, IIT BHU, the problem statement of which required to design a grid solver robot.
- Collaborated to make a gesture recognizing code snippet for Mosaic, AAYAM, 2014, IIT BHU.
- Participated in Fine Arts events in Rendezvous 2014, IIT Delhi.
- Participated in Fine Arts events in Kashiyatra 2014, IIT BHU.
- Mentored a team for Robohunt 2014, IIT BHU.
- Represented school for the Albert Barrow Essay Competition 2009.
- Participated in many inter school debates and won many school level science quizzes.

PERSONAL INFORMATION

- Father: Hari Krishna Dixit
- Gender: Female
- Marital Status: Single
- Nationality: Indian
- Mother: Poonam Dixit
- Date of Birth: 29/09/1994
- Languages: Hindi, English
- Permanent Address: 55, Vijay Nagar, Kanpur Road, Lucknow, Uttar Pradesh.
- Current Address: 31A, Gandhi Smriti Mahila Chhatravas, New Extension, IIT BHU, Varanasi.