

Rohin K. Yeluripati

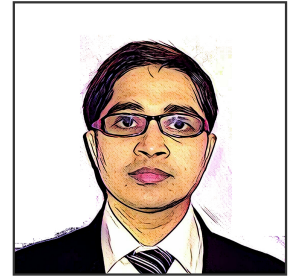
INVENTOR · TINKERER · RESEARCHER

A-41, Ganesh Colony, Pilani, Rajasthan-333031, India

☎ (+91)9818092877 | ✉ rohinkumar@outlook.com | 🌐 www.rohinkumar.strikingly.com | 📷 rohinkumar

| 📺 yrohinkumar | 🐦 @yrohinkumar | 📧 y.rohinkumar

“What I cannot create, I do not understand. - R. Feynman”



Education

Master of Engineering (M.E.), Micro Electronics

BITS-PILANI(BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE)

Dropped out

Aug, 2009 - Feb, 2010

Master of Sciences (M. Sc (Hons.) Physics) with Bachelor of Engineering (B. E (Hons.) Electrical and Electronics Engineering)

BITS-PILANI(BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE)

CGPA - 8.65/10

Aug, 2004 - July, 2009

- Secured all “A” grades in M.Sc Physics with topping most of the courses.
- Received BITS Merit-cum-need Scholarship for maintaining good CGPA in academics throughout

Industry/Startup Experience

Chief Designer, Hardware

IoTfy INC.

New Delhi

Dec, 2016 - PRESENT

- Built and wrote firmware for Smart RO systems with IoT integration
- Calibrated TDS sensors for Water purity testing

Founder-CEO, R & D Chief

MyTi TECHNETRONICS PVT. LTD.

New Delhi/Pilani

Dec, 2012 - PRESENT

- Worked on building an R & D company in design and electronics.
- Developed MyTi.Note tablet, Zappowr & did consulting for research projects.
- Did product design, component selection, prototyping, testing etc.
- Acquired various skills ranging from embedded systems design to final PCB design, technology research to firmware coding

Intern, Tech R & D Group

STMICROELECTRONICS

Greater Noida, Uttar Pradesh

Jul, 2008 - Jun, 2009

- Developed a “High Speed Transceiver High Precision SILICON-CAD Validation Methodology Development” which is aimed at designing a new flow for signal integrity verification.
- Did a semi-custom design of an “All Digital Phase-Locked Loop” for digitally controlled clock generation using the standard cell libraries in CMOS090.
- Played an active role as a member of team consisted of 8 members in verification of a chip named Bolero in Automotive Product Group.

Research Experience

Research Scholar

DEPARTMENT OF PHYSICS & ASTROPHYSICS, UNIVERSITY OF DELHI

Delhi

Feb, 2012 - Feb, 2018

- Submitted thesis on “Studies in Alternative Cosmologies” for Ph.D. in Physics.
- Worked on Machine Learning Techniques to extract statistical parameters from SDSS sky survey
- Created small software packages and utilities (including **correlcalc**) in Python
- Studied alternative models of Cosmology and put observational constraints on them

Project Research Assistant

PHYSICS BEYOND STANDARD MODEL, UGC PROJECT

Delhi

July, 2011 - Feb, 2012

- Helped setup computational facilities and work-flow for particle physics simulations

Summer Research Fellow

DEPARTMENT OF PHYSICS & ASTROPHYSICS, UNIVERSITY OF DELHI

Delhi

May, 2011 - Sept, 2011

- Worked on some aspects of Higher Dimensional Cosmology and simulated results

Teaching Experience

Assistant Professor

SHRIDHAR UNIVERSITY

Pilani

Aug, 2015 - Aug, 2016

- Taught Embedded Systems and Programming, Optical Communication & Fiber Optics, Basic Physics to B.E. (Electronics) students.
- Helped setup Robotics lab and Astronomy club along with guiding student projects.

Guest Lecturer

SGTB KHALSA COLLEGE, UNIVERSITY OF DELHI

New Delhi

Aug, 2011 - Mar, 2013

- Taught Electromagnetic Theory, Signals & Systems, C++ Programming to B.Sc (Electronics) students.
- Conducted lab practicals along with guiding student projects.

Guest Lecturer

GITAM UNIVERSITY

Visakhapatnam, Andhra Pradesh

Sept, 2010 - May, 2011

- Taught core courses to M.Sc (Electronics) and M.Sc (Physics) students along with projects.

Tutor, College grade

TUTORVISTA GLOBAL PVT LTD, PEARSON EDUCATION

Online

Sep, 2010 - May, 2011

- Did online tutoring (teaching Physics) for college grade students.

Teaching Assistant

BITS-PILANI

Pilani, Rajasthan

Aug, 2009 - Feb, 2010

- Helped in setting up Wireless Communications Lab.
- Worked as TA for Electronic Devices & Integrated Circuits, Digital Electronics & Microprocessor Programming and Measurement Techniques courses.

Patents

| | | |
|------|---|----------------|
| 2013 | Complimentary Pointing/Writing/Text Input Hybrid Device for Tablets & Other Computing Devices, Indian Patent no: 2109/DEL/2012, Pending | Utility Patent |
| 2013 | Symmetrically Connected Tablet, Indian Patent no: 251584, issued | Design Patent |
| 2013 | Write and Type Hybrid Cover, Indian Patent no: 251585, issued | Design Patent |
| 2013 | 3 patents of "Tablet with multipurpose cover", Indian Patent nos: 251684, 251685, 251686, issued | Design Patent |

Skills

| | |
|--------------------------|--|
| Programming | C/C++, Python, Java, Javascript, HTML, Perl |
| Software Packages | Matlab, Mathematica, Maple, MS Office, ipython notebook, LaTeX, GNU Octave |
| Hardware/Design | Cadence Virtuoso, Cadsoft Eagle, DesignSpark PCB, ModelSim, Arduino, Embedded Programming, Verilog, VHDL, Sketchup |
| Operating Systems | Linux/Unix, MacOS, Windows, Solaris |
| Languages | English, Hindi, Telugu, Sanskrit |

Honors & Awards

| | | |
|-------|--|------------------|
| 2013- | Mentor, TechTop, MIT Media Lab India Initiative at Mumbai, Trivandrum, Cochin | Mumbai |
| 2014- | Fellow of the Startup Leadership Program, Startup Leadership Program | Delhi |
| 2013- | Fellow of the Power of Youth, Power of Youth, Metta Network | Delhi/Scotland |
| 2014 | Interview Broadcast, A special program on 'MyTi' and interview featured on NDTV | NDTV, India |
| 2012 | Mentor, Asian Physics Olympiad, 2012 | Delhi |
| 2012 | 1st position, AMITY B-Plan Competition | AMITY University |
| 2012 | 2nd Place, Entrepreneurship Summit, Acumen, B-Plan Competition | NIT, Silchar |
| 2006 | 2nd Place, Embedded Brains, APOGEE | BITS-Pilani |
| 2004 | Pratibha Award, Conferred by the Govt. of A.P for excellence in Intermediate Public Examination | Hyderabad, A.P |
| 2004 | State 2nd topper, Awarded by the Telugu Academy for excellence in board exams in Telugu Medium | Hyderabad, A.P |

Foreign Visits

| | |
|----------------------------|--|
| Silicon Valley, USA | 2015 - Consulted for YouWeb (9Plus) Incubator for setting up a prototyping lab for IoT startups |
| Shenzhen, China | 2014 - Visited tablet and mobile phone manufacturing facilities for MyTi and NuVo |
| Trieste, Italy | 2013 - Attended conference on Planck satellite data on CMB observations at International center for Theoretical Physics (ICTP) |

Publications

correlcalc: A 'Generic' Recipe for Calculation of Two-point Correlation function

ASTRONOMY & COMPUTING

- A Machine learning algorithm deployed to compute 2pCF quickly for any alternative model of Cosmology.

Delhi University

Under Review

Gravity Models for Linearly Coasting Cosmologies

GENERAL RELATIVITY & GRAVITATION

- Instead of assuming a form of gravity and demand cosmology fit with Λ CDM, a potentially 'viable' $f(R)$ gravity model is derived assuming an alternative model of cosmology.

Delhi University

Under Review

A New Class of Cosmologically 'Viable' $f(R)$ Models

INDIAN ASSOCIATION FOR GENERAL RELATIVITY AND GRAVITATION (IAGRG) NAMED "THE ERA OF GRAVITATIONAL WAVES"

- A Poster presented on alternative gravity models that are cosmologically viable

IIT-Guwahati

May, 2017

Yukawa type corrections to Newtonian potential and its implications at different scales

YOUNG ASTRONOMER MEET (YAM)

- A contributed talk presented on the effect of Yukawa-type potential corrections in galaxy rotation curves observations

IUCAA, Pune

Sept, 2017

Galaxy Clustering in Alternative models

ASTRONOMICAL SOCIETY OF INDIA (ASI)

- Observational galaxy clustering and its dependence on fiducial cosmological model.

Osmania Univ

Feb, 2018

GSM based Intelligent Instrumentation

NATIONAL CONFERENCE ON VIRTUAL AND INTELLIGENT INSTRUMENTATION

- This paper discusses a GSM model to control remotely placed instruments using Short Messaging Service (SMS).

BITS-Pilani

Nov, 2009

Extracurricular Activities

- | | | |
|---------|---|-------------|
| 2013-14 | Panel member on TV Debates , Participated in a couple of debates on NDTV representing BITS-Pilani at the request of their PR team | Delhi |
| 2006-08 | Astronomy Club Secretary , Conducted Sky-watch sessions and workshops on Amateur Astronomy and Telescope making | BITS-Pilani |
| 2004-06 | Organizing Committee Member, SPIC-MACAY , Organized various cultural events as part of society for the promotion of Indian classical music and culture amongst youth | BITS-Pilani |
| 2004-06 | Core Member, Dept. of Trophy Fabrication , Actively participated in designing trophies and mementos for various events at the institute | BITS-Pilani |

Hobbies

- Amateur Astronomy, Reading, sketching and playing badminton
- Singing and appreciating Indian classical music and playing Veena, Harmonium