

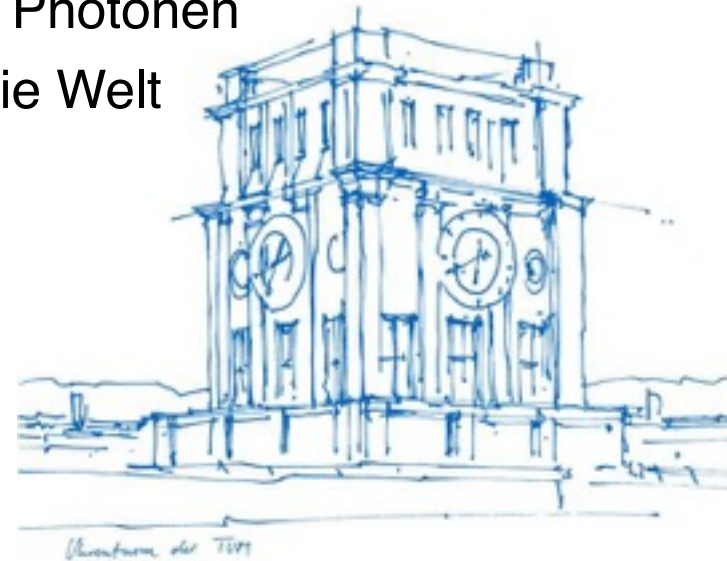
# Blickpunkt Nachrichtentechnik

## Aus dem Alltag junger Wissenschaftler im Studium, vor der Promotion und im Beruf

Technische Universität München

Bayerische Akademie der Wissenschaften  
Informationsübertragung mit Photonen  
Lichtteilchen verbinden die Welt

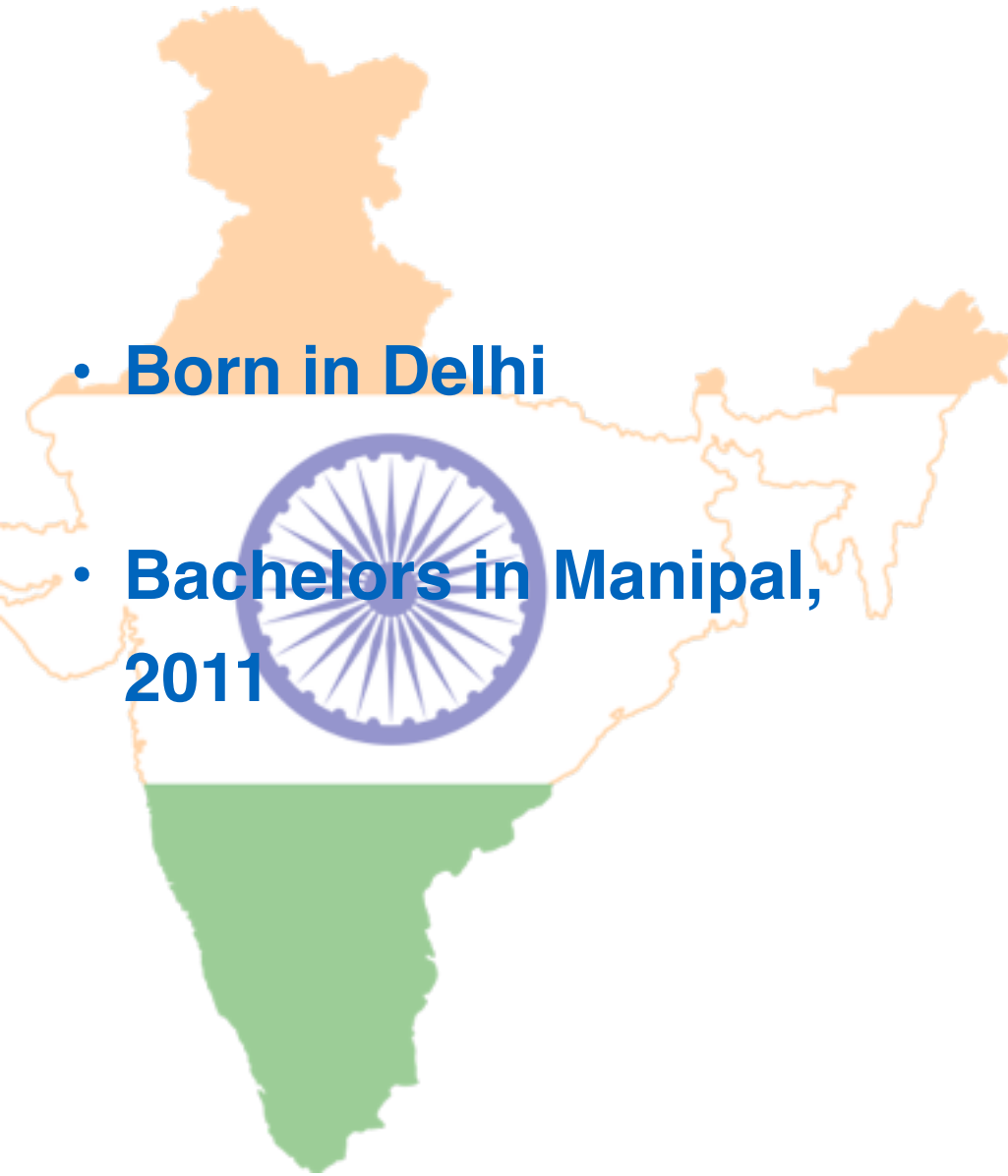
20. April 2018



**Hello !**

**My name is Ginni Khanna**

**and I am a Dr. Ing. Candidate at TUM**



- **Born in Delhi**

- **Bachelors in Manipal, 2011**

- **Masters at TUM, 2013**

- **Optical Communication  
Dr. Ing. Candidate, 2014-**



# Why Engineering ?



• Look what all we invented !

**And the most important invention...**

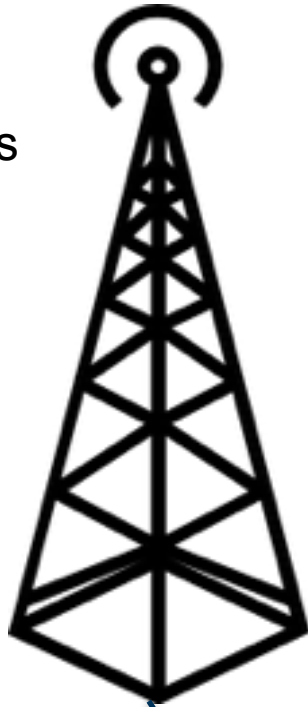
# The INTERNET



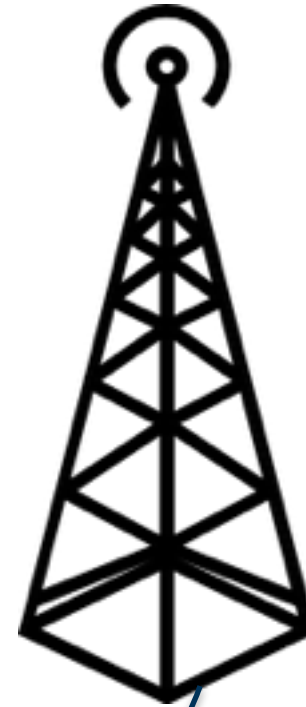
# The “hidden” building blocks of the INTERNET

Base stations

Wireless  
transmission



Optical Fibers  
Wired transmission





# Getting into optics

- April 2012: It was an accident I walked into Prof. Hanik's course
- June 2013: Given a chance to work hands-on in Coriant GmbH lab for Master Thesis

## My work

- High data rate optical communication systems
- Increasing data rate from 40Gbit/s -> 400Gbit/s -> 600Gbit/s
- Using same old transmitter hardware -> saves costs
- Implementing **Digital Signal Processing**
- **Automatic calibration of transmitter components**

# Retrospective

- A great decision to become an engineer
- An even better decision to come to Germany
- Munich offered a great environment
- Doctoral work and fun while travelling to USA, France, Italy, Spain..
- We wish you the best of luck in your career choice!

**If you can dream it, you can do it !**