

## IIIT Guwahati Summer Internship Programme 2018

IIIT Guwahati is inviting applications for its Summer Internship Programme, 2018. It is a 8 -10 week-long programme which gives an opportunity to under graduate students to work on various current research topics.

**Who can apply:** Those who are likely to complete 3 years of BE/B.Tech program in CSE, ECE, IT or other related disciplines by summer of 2018. Those who are likely to complete 2 years of BSC in Mathematics or Statistics can also apply for the topics available in Mathematics department.

**Duration:** 8-10 weeks (in the period 7 May - 22 July 2018).

**Research topics and department:** The research topics are mentioned department-wise (ECE, CSE and Math) in Table 1. The code-name against each topic specifies the department and the first name of the supervisor. The applicant may apply in any department (CSE/ECE/Math) based on the area of interest. The applicant can give three preferences of the topics. ***Please note that BSC students can only apply in Mathematics department.***

**How to apply:** Interested applicants can fill up and submit the online form ([click here](#)). After submitting the form, the applicant will have to send a CV and mark-sheets (10<sup>th</sup>, 12<sup>th</sup> and BE/B.Tech up to 5<sup>th</sup> sem) to [iiitg.training@gmail.com](mailto:iiitg.training@gmail.com). All the documents must be in PDF. The subject line of your mail must be **Summer Internship 2018**. *Even if the applicant has already contacted some faculty members, it is mandatory to fill this online form. In such cases, the candidate may consult with the particular faculty member regarding the **topic code** which is needed to be mentioned in the form.*

**Selection process:** Selection process will be based on the academic records and research interest.

**Important dates:** The last date for accepting the application form is 28<sup>th</sup> February, 2018.

**Stipend:** No stipend will be given during the internship.

**Accommodation:** Hostel rooms will be provided on sharing basis if required. No bedding will be provided.

**Food:** Mess food will be available on payment basis.

**How to reach IIITG:** The contact details of IIITG (both institute and hostel) are mentioned in this link. <http://iiitg.ac.in/contact.php>

**Contact Person:**

1. Dr. Shirshendu Das – 9435277250 and Dr. Kuntal Deka – 8638304706
2. **Email:** [iiitg.training@gmail.com](mailto:iiitg.training@gmail.com)

**Table 1: The research areas and Topics are mentioned in this Table.**

Srl No	Area	Topic	Code
1.	Antenna Design	Designing of wide/ultra-wide band antennas.	ECE-Bidisha-1
		Designing of reconfigurable antennas.	ECE-Bidisha-2
2.	Signal Processing	Environmental sound recognition	ECE-Shovan-1
		EEG based emotion recognition	ECE-Shovan-2
3.	Wireless Communications	Free space optical communications	ECE-Sanya-1
		Visible light communications	ECE-Sanya-2
4.	Wireless Networks	Wireless networks	ECE-Shilpa-1
5.	Medical imaging, image processing and pattern recognition	Diffuse optical tomographic reconstruction	ECE-Rusha-1
		Noninvasive anemia detection	ECE-Rusha-2
6.	Control Systems	Consensus control for a multi-agent systems	ECE-Surajit-1
		Reinforcement learning and feedback control	ECE-Surajit-2
		Vehicle navigation and control	ECE-Surajit-3
7.	Analog VLSI Design	Analog or mixed signal VLSI design	ECE-Mourina-1
8.	Wireless communication, Error Correcting Codes	Wireless communication	ECE-Kuntal-1
		Error correcting codes	ECE-Kuntal-2
9.	Wireless Communication	Millimeter wave communication	ECE-Aruna-1
10.	Embedded Systems and Digital VLSI	FPGA based system design and Memory Architecture	ECE-Soumyajit-1
		Reinforcement Learning based embedded systems	ECE-Soumyajit-2
11.	Security, Network, Cloud Computing and Internet of Things (IoT)	Secure Communication in Internet of Things	CSE-Ferdous-1
		Authentication authorization and access control in cloud	CSE-Ferdous-2
		Building solution using Internet of Things	CSE-Ferdous-3
12.	Parallel Computing and HPC	Social network analysis	CSE-Dip-1
		Systems and machine learning	CSE-Dip-2
13.	Image Processing, Computer Vision	Text recognition in natural images	CSE-Nilkanta-1
14.	Machine Learning	Remotely Sensed image analysis using the concept of machine learning	CSE-Moumita-1
		Change detection methods for video segmentation	CSE-Moumita-2

15.	Internet of Things	Internet of vehicles: Intelligent transportation systems	CSE-Rakesh-1
16.	Information Security	IFTTT based Privacy preserved Smart Home Configuration	CSE-Subhasish-1
		Implementation of homomorphic encryption based Secure protocols	CSE-Subhasish-2
		WBAN based privacy preserved emergency health monitoring System	CSE-Subhasish-3
17.	Networks and Game Theory	Social networks	CSE-Rohit-1
18.	Wireless sensor networks, Internet of Things	Connected vehicles	CSE-Suchetana-1
		Mobile sensing applications and smart home systems	CSE-Suchetana-2
19.	Computer Architecture	Replacement Policies for DRAM Cache Memories	CSE-Shirshendu-1
20.	Real-Time Systems	Development of an input generation framework for Real-Time systems	CSE-Sanjay-1
20.	Applications of mathematics, statistics, econometrics and machine learning	Portfolio optimization, stochastic optimization in finance, behavioral finance	Math-Amita-1
		Machine learning in finance, risk analysis	Math-Amita-2
21.	Numerical analysis	Boundary layer problems in ODE	Math-Anuradha-1
		Black-Scholes model: Numerical approach	Math-Anuradha-2
22.	Number Theory, Algebra.	Permutation polynomials.	Math-Gautam-1
		Elliptic curves and character sums	Math-Gautam-2