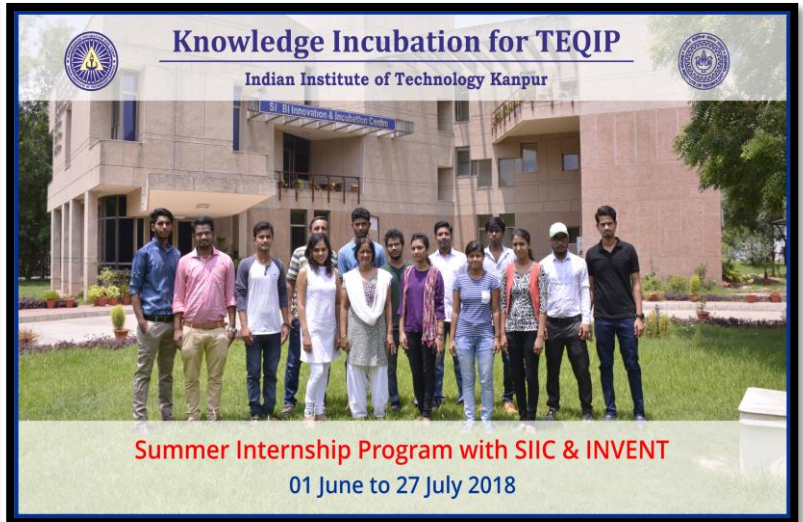




KNOWLEDGE INCUBATION FOR TEQIP
IIT KANPUR

Summer Internship & Visiting Researcher Program

June 01-30, 2018



This program aimed to help students and teachers from TEQIP colleges to interact with IIT Kanpur faculty and expand their teaching and learning abilities. For the past 4 years KIT at IIT Kanpur has organized this program very successfully. This year KIT received 1400 applications from all over India. From this 18 faculty and 34 students were selected to work under IIT Kanpur faculty. Most of the faculty and students were from UP and Bihar. Additionally, this year some students were selected to work under companies who were incubated at **SIDBI Innovation and Incubation Centre (SIIC) at IIT Kanpur**. This is a unique program launched by KIT IIT Kanpur this year to encourage students to get acquainted with the process of converting a viable innovative idea/research into a valuable product and the final outcome being generating entrepreneurs.

Visiting Researcher Program was planned to facilitate knowledge exchange between faculty members of IIT Kanpur and guest faculties/ PhD students from Institutes under KIT's quality circle. It aimed at helping them enhance their teaching, research and overall productivity. During their stay, they work with their host faculty at IITK on research topics of mutual interest. *This is an excellent platform where faculty members from TEQIP institutes can interact with IIT*

Kanpur professors and learn about each other's expertise, share knowledge and gain an appreciation of different professional cultures.

Summer Internship Program aimed at exposing selected students to the academic culture of IIT Kanpur and help them adopt new methods of learning their subject of interest. Selected students conduct their internships on approved topics given to them by their host faculty at IIT Kanpur. While their stay students get an opportunity to discover themselves in a place that was unfamiliar to them, this helps them develop self-awareness and self-esteem in a special way. All internship candidates strongly felt that programs like these help them improve their skills and also encourage them to work harder to achieve excellence in their field.

SELECTED VISITING RESEARCHERS

S. No	Name	Institute	Host Faculty at IIT Kanpur
1	A.Thiruneelakandan	Dr. B R Ambedkar Institute of Technology, Andaman & Nicobar Islands	Prof. Sandeep Shukla,
2	Dr Vivek Kumar Srivastav	Motihari College of Engineering Motihari-Bihar	Prof. Rathish Kumar
3	Dr. Deepak K S Ambast	Gaya College of Engineering (Govt. of Bihar), Gaya, India	Prof. S. Anantha Ramakrishna
4	Dr. Nagendra Reddy	National Institute of Technology Kurukshetra,	Prof. Anupam Saxena
5	Dr. Sanjeev Kumar Singh Yadav	HBTU	Prof. Kamal K. Kar
6	Dr. Vinay Pratap Singh	HBTU	Prof. Kantesh Balani
7	E. Muthu Kumaran	Dr. B. R. Ambedkar Institute of Technology, Andaman & Nicobar Islands	Prof. M. Jaleel Akhtar
8	Gaurav Srivastava	Bundelkhand University, Jhansi	Prof. Mainak Das
9	Ghanashyam Kumar Prajapati	Lok Nayak Jay Prakash Institute of Technology, Chhapra, Bihar	Prof. Abhijit Pal
10	Mr. Abhishek Kumar	Jabalpur Engineering College, Jabalpur	Prof. Sudhanshu Shekhar Singh
11	Mr. Anit Kumar	IET, Bundelkhand University, Jhansi	Prof. Ashwani Kumar Thakur
12	Mr. Arjit Pandey	Jabalpur Engineering College, Jabalpur.	Prof. R. Matpal
13	Mr. Dibyanshu Pandey	Government Engineering College Jhalawar	Prof. J Ramkuamr

14	Mr. Kushagra Tiwari	JEC Jabalpur	Prof. Arvind Kumar
15	Mr. MD Shahir Mollick	Nalanda College of Engineering, Chandi	Prof. Arbind K. Lal
16	Mr. Praveen Kumar	BGSB University, Rajouri, J & K	Prof. Ramprasad Potluri
17	Mr. Praveen S	Dr. B.R. Ambedkar Institute of Technology, Port Blair, Andaman & Nicobar Islands	Prof. Arghya Das
18	Ms. Arnika Verma	Jabalpur Engineering College, Jabalpur.	Prof. Rajesh Kitey

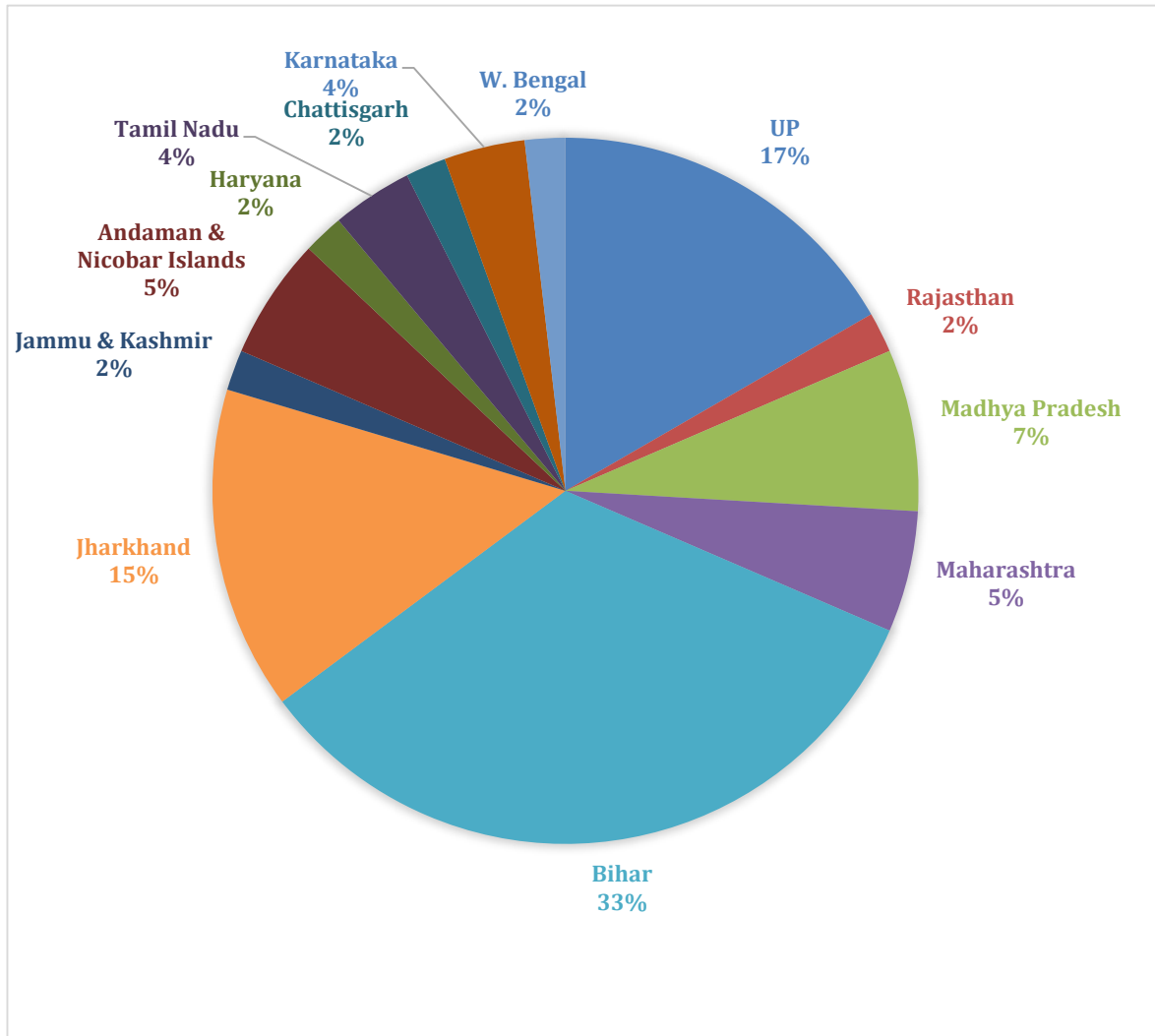
SELECTED STUDENTS

S. No.	Name	Institute	Host at IIT Kanpur
1	Abhishek S N	NIT, Mysuru	J Ramkumar
2	Aduitey Dubey	Dayalbagh Educational Institute, Agra	Dr. YN Singh
3	Akriti Rastogi	Dayalbagh Educational Institute, Agra	Dr. YN Singh
4	Ambika Bhardwaj	Dayalbagh Educational Institute, Agra	Dr. YN Singh
5	Anshu Kumari	DCE, Darbhanga	Y. N singh
6	Aviral Kumar	DCE, Darbhanga	Niraj Sinha
7	Dhariness Raj	Thiagarajar College of Engineering (autonomous),	Prof. J Ramkumar
8	Harshmit Kaur Saluja	HBTU	Prof. RRK Sharma
9	K. Siddarth Bhat	The National Institute of Engineering, Mysuru	J Ramkumar
10	Ms.V.Pavithra	Thiagarajar College of Engineering, Madurai	Prof. R. K Ghosh
11	Pallavi Kumari-II	DCE, Darbhanga	Chandraprakash Chindam
12	Pallavi Raj	DCE, Darbhanga	Niraj Sinha
13	Pinki Pal	BIT, Mesra	Prof. Raju kumar Gupta
14	Royal Madan	NIT Raipur	Dr. P M Mohite
15	Shruti Jain	Dayalbagh Educational Institute, Agra	Dr. YN Singh

SELECTED STUDENTS UNDER SIIC & INVENT PROGRAM

No.	Name	Institute	Company
1	Abhinesh Kumar	DCE, Darbhanga	Healthed Technologies
2	Anjani Kumari	Motihari College of Engineering, Motihari	Kritsnam Technologies
3	Ankit Yadav	KNIT Sultanpur	Deoria Designs
4	Anuj Jaju	Institute of Chemical Technology, Mumbai	God Head Beverages Pvt. Ltd.
5	Apoorva	IEST,Shibpur	SIIC, IIT Kanpur
6	Dhiraj Ramteke	Govt. College of Engineering, Jalgaon	G T Silicon, Pvt. Ltd.
7	Gaurav Kumar	DCE, Darbhanga	G T Silicon, Pvt. Ltd.
8	Helal Ahmad Ansari	DCE, Darbhanga	Greengine
9	Kumari Jyoti	UCET, VBU Hazaribag, Jharkhand	Greengine
10	Kunal Kishore	Dumka Engineering College, Dumka	Kanopy Techno Solutions
11	Nandan Priyadarshi	DCE, Darbhanga	God Head Beverages Pvt. Ltd.
12	Patil Aditi G	Govt. College of Engineering , Jalgaon	NA
13	Pritam Kumar	Dumka Engineering College, Dumka	AGRONXT Services Pvt. Ltd.
14	Pushpal Singh	Lok Nayak Jay Prakash Institute of Technology, Chhapra, Bihar	Taankbrothers Ventures Pvt. Ltd.
15	Rahul kumar	Dumka Engineering College, Dumka	AGRONXT Services Pvt. Ltd.
16	Saurabh	BIT Mesra	Greengine
17	Sumit Kumar	MIT Muzaffarpur	God Head Beverages Pvt. Ltd.
18	Surabhi Rani	UCET, VBU Hazaribag, Jharkhand	SecureFire Pvt. Ltd
19	Suraj Kumar	UCET, VBU Hazaribag, Jharkhand	Greengine

STATEWISE PARTICIPATION



TOTAL NO OF SELECTED FACULTY: 18

TOTAL NO OF SELECTED STUDENTS: 34

Institute-wise Participation Summary
Summer Visiting Researchers

S.No.	Institute	Nomination
1	BGSB University, Rajouri, J&K	1
2	Lok Nayak Jay Prakash Institute of Technology, Chhapra	1
3	Dr. B. R. Ambedkar Institute of Technology, Andaman & Nicobar Islands	3
4	Bundelkhand University, Jhansi	2
5	HBTU, Kanpur	2
6	JEC Jabalpur	4
7	Government Engineering College Jhalawar	1
8	Motihari College of Engineering Motihari-Bihar	1
9	National Institute of Technology Kurukshetra	1
10	Nalanda College of Engineering, Chandi	1
11	Gaya College of Engineering, Gaya	1
Total		18

Students-Summer Interns

S.No.	Institute	Nomination
1	HBTU, Kanpur	1
2	BIT, Mesra	2
3	Thiagarajar College of Engineering	2
4	NIT Raipur	1
5	Dayalbagh Educational Institute, Agra	4
6	DCE, Darbhanga	8
7	NIT Mysuru	2
8	IEST, Shibpur	1
9	Lok Nayak Jay Prakash Institute of Technology, Chapra	1
10	Motihari College of Engineering, Motihari	1
11	Dumka Engineering College, Dumka	3
12	UECT, VBU Hazaribag, Jharkhand	3
13	MIT Muzaffarpur	1
14	Govt. College of Engineering, Jalgaon	2
15	Institute of Chemical Technology	1
16	KNIT, Sultanpur	1
Total		34

OUTCOME

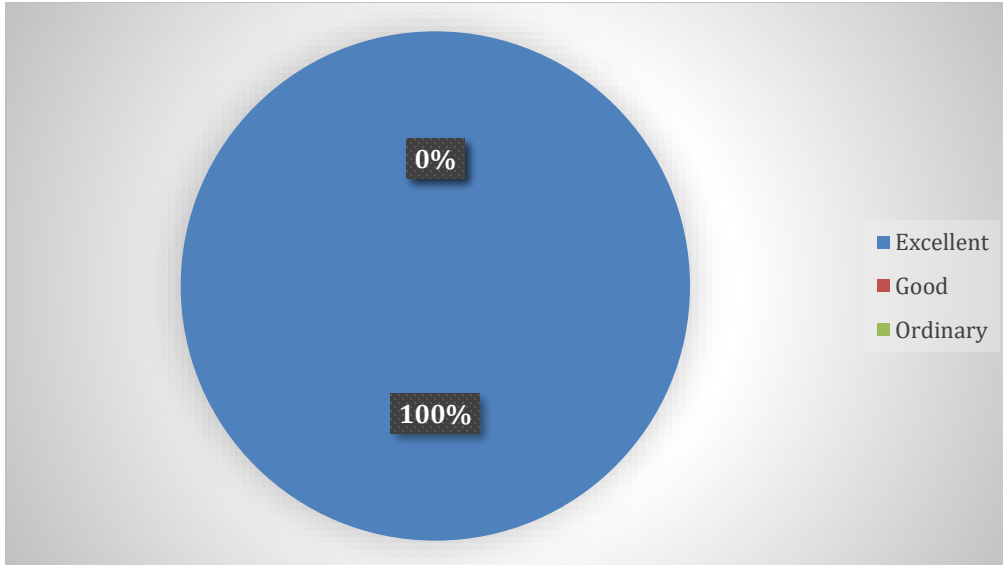
In past few years this program has evolved into a portal with the help of which TEQIP institutes and IIT Kanpur are forming foundations of productive research and knowledge exchange. The interactions through internships and visiting programs have been mutually beneficial for IIT Kanpur and TEQIP institutes as they have resulted in some published work and future collaborations.

- Through programs like these KIT has created an excellent opportunity for students and faculty members of TEQIP institutes to learn new ideas and techniques to further develop their research/teaching skills. such initiatives give them an experience of working in a different academic setting and gather skills that will enhance their current work as well as future personal and professional plans.
- Visiting researchers got a chance to interact with people in their research field at IITK which helped them gain new experience and techniques to further develop their research skills.
- Participants got an exposure to the work environment of IIT Kanpur and they left motivated to create such atmosphere at their institute.
- After the completion of this program students had a much better understanding of theoretical and practical aspects of their research areas.
- Students got a chance to test their interests in their current field and develop their long-range career plans.

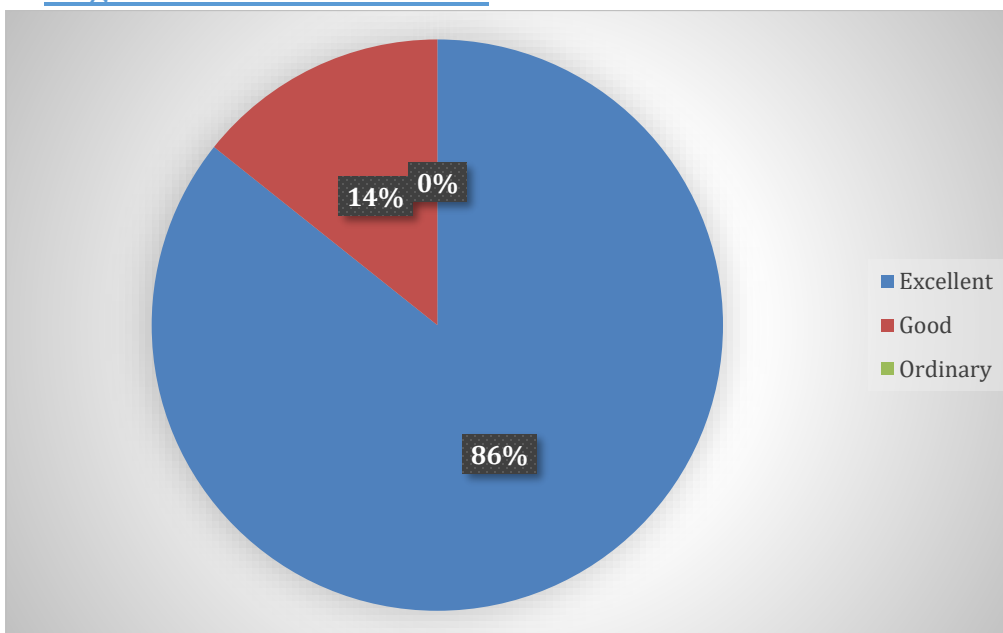
SUMMARY of FACULTY FEEDBACK

Workshop

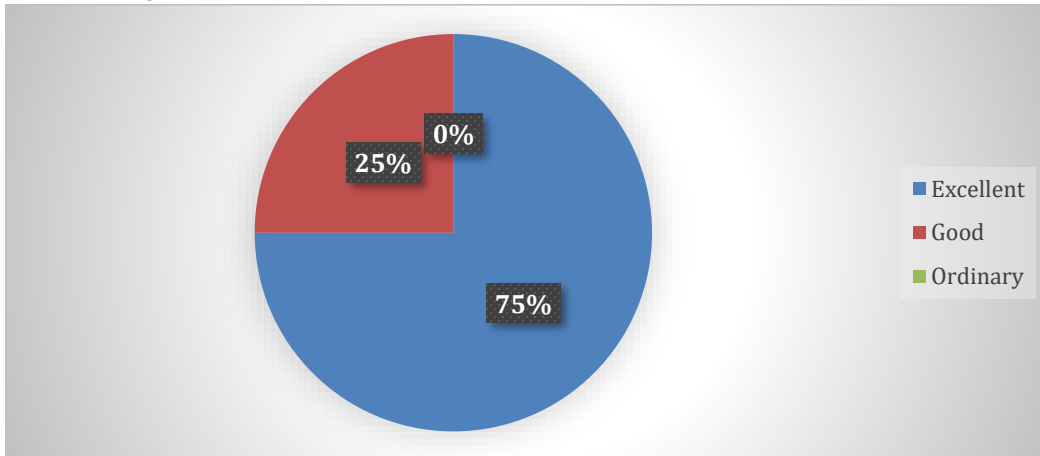
1. Clarity of communication about workshop?



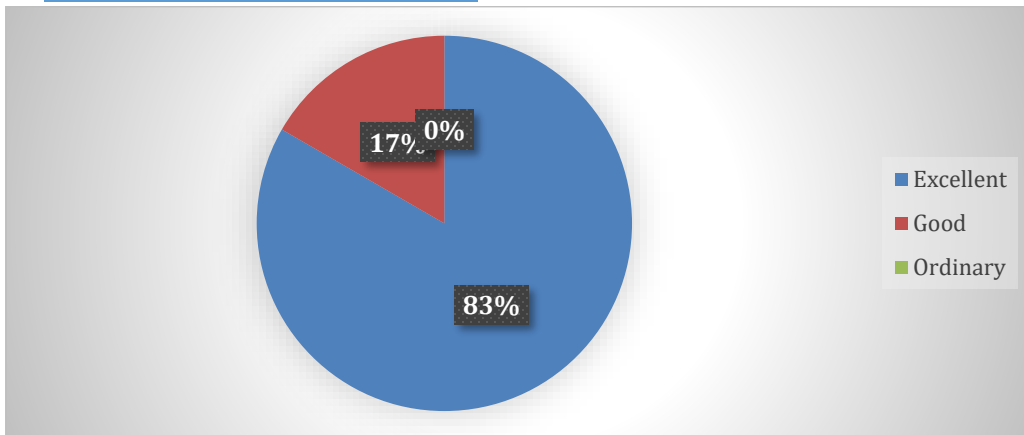
2. Organization of the sessions



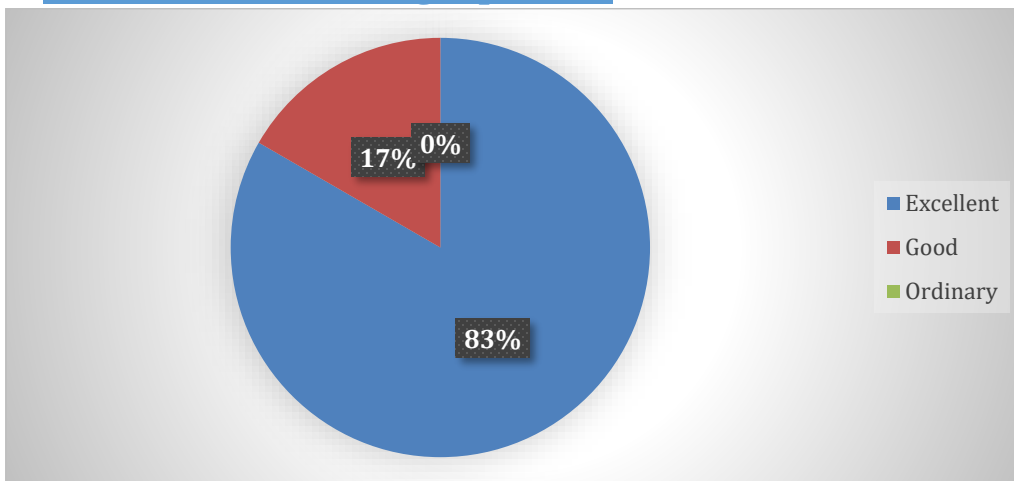
3. Quality of lectures?



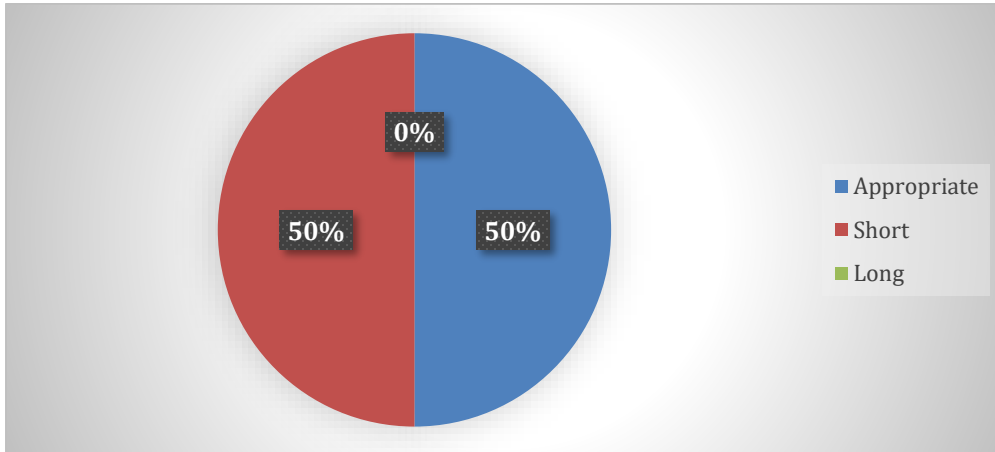
4. Effectiveness of discussions



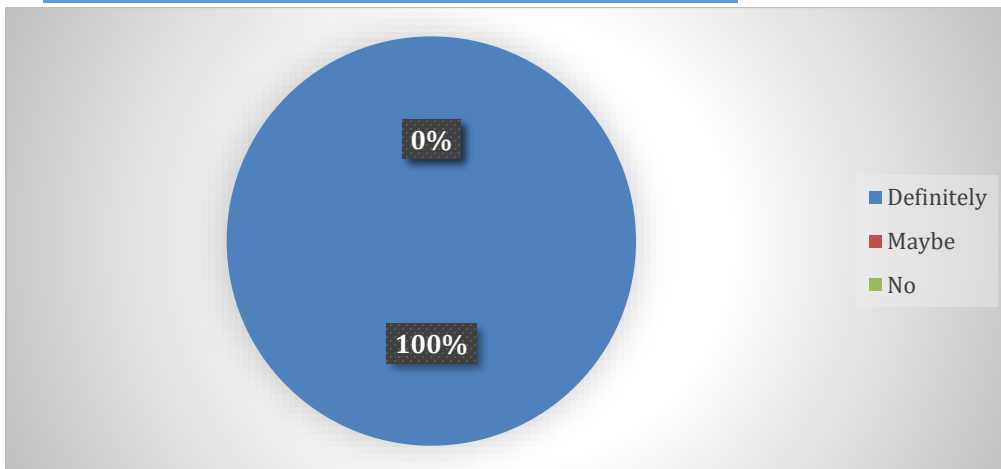
5. Effectiveness of learning experience



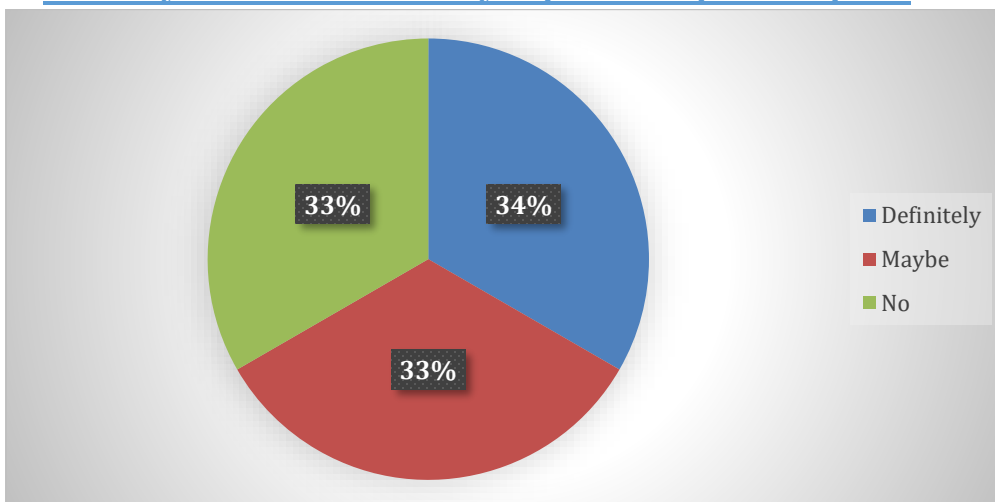
6. Duration of workshop



7. Would you like to have more such sessions?



8. Would you like e-lectures by experts on special topics?



9. Suggest specific topic that you would like additional expert lectures on

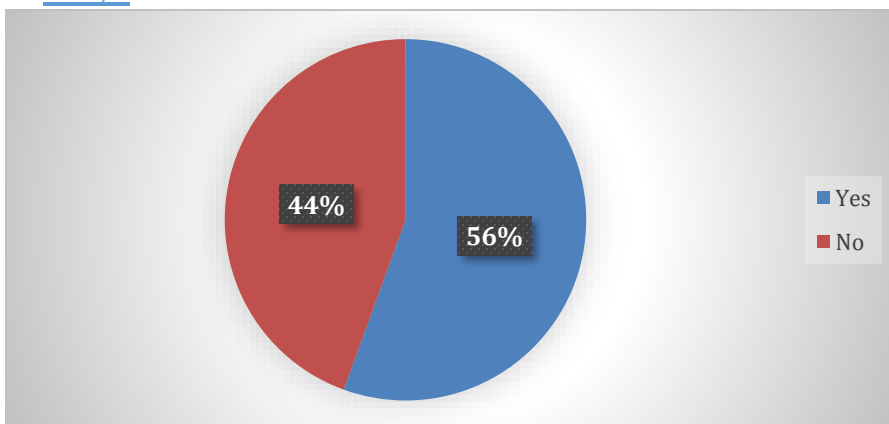
- Additive Manufacturing
- 3D Printing
- Advanced Manufacturing
- Hypersonic Gas Dynamics
- Biomaterials, Smart materials
- Cyber physical system, Block chain technology, Deep learning
- Block chain Technology, 5G:D2D Communication
- Food chemistry

10. Additional Suggestions

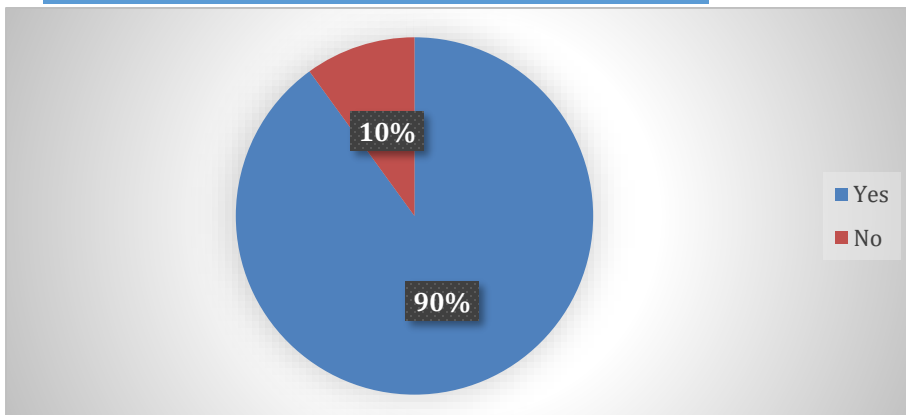
- Time duration (1 Months) for visiting researcher program is very short .it needs to be of at least 3-6 months.
- Further, NPIU should check that every college under TEQIP gives permission to faculties to attend the same.
- Duration of visiting Research program is very short.

Teaching

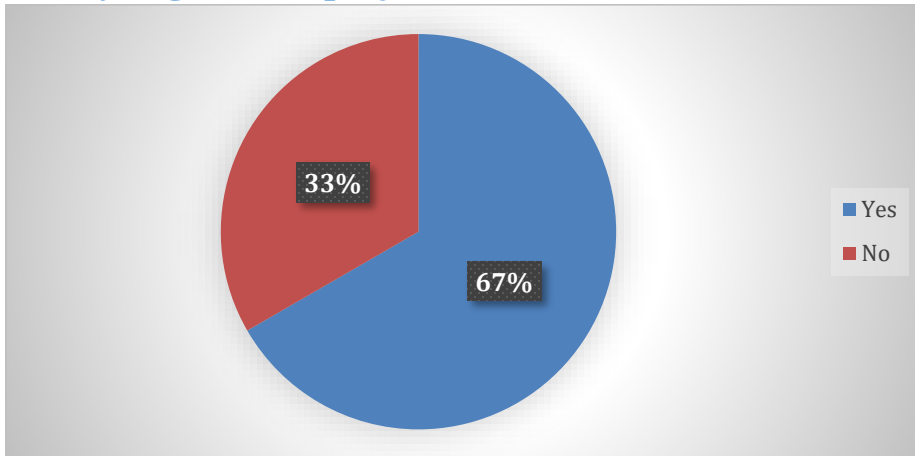
1. Do you have additional support for teaching (tutors, graders, teaching Assistant etc.)?



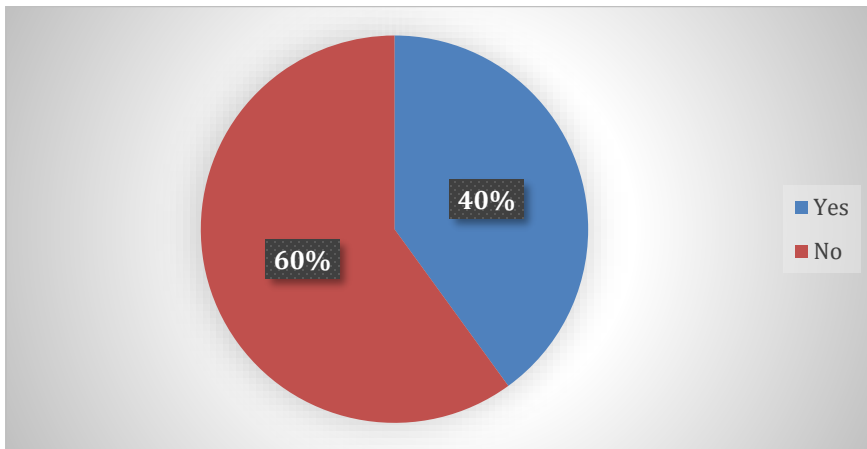
2. Do you give class projects for UG classes?



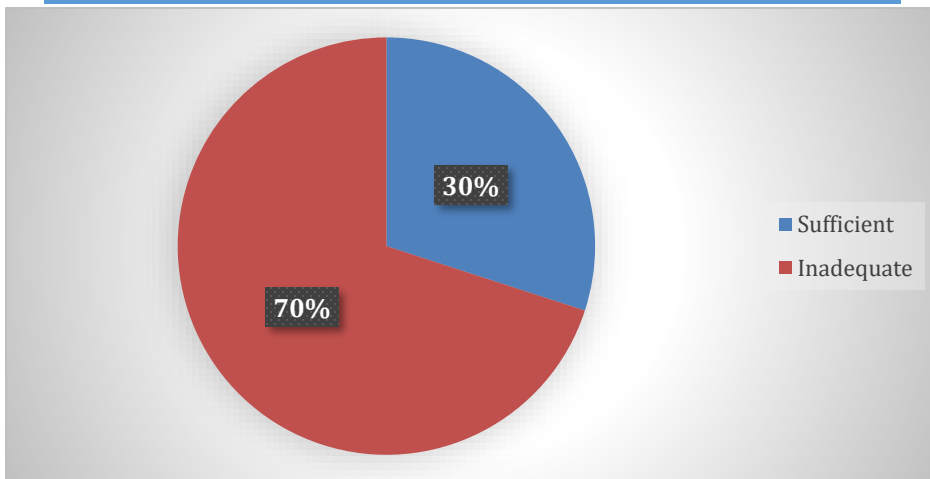
3. Do you give class projects for PG classes?



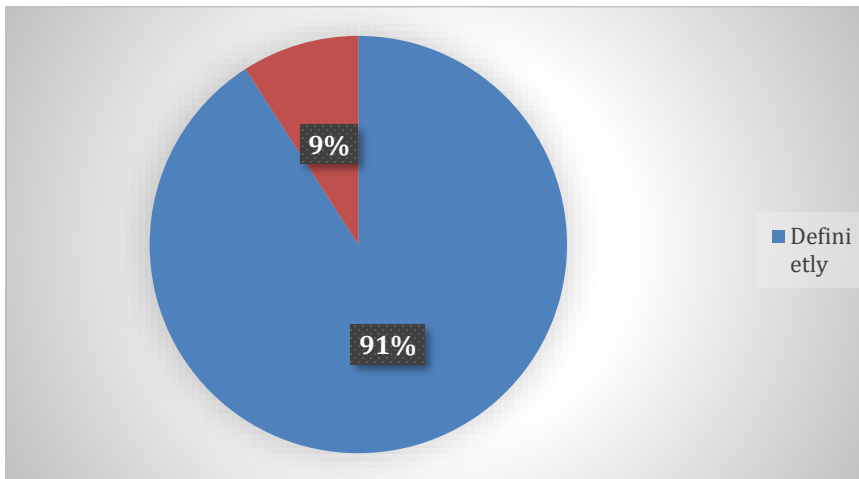
4. Do you have sufficient resources for laboratory courses?



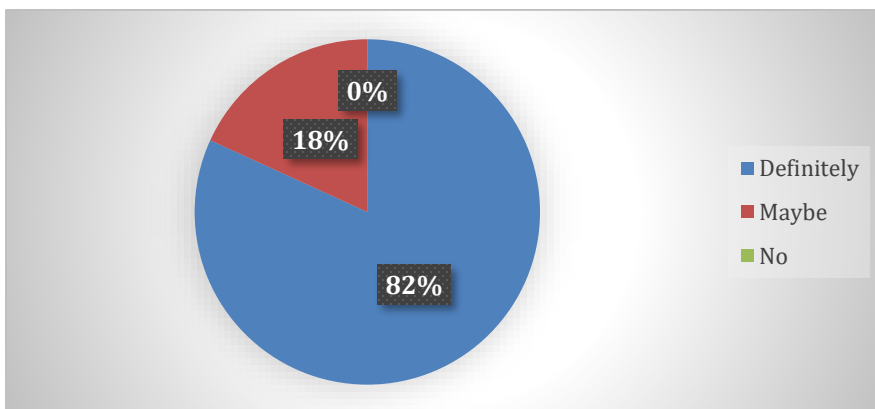
5. Is the library/journal/e-connection support adequate?



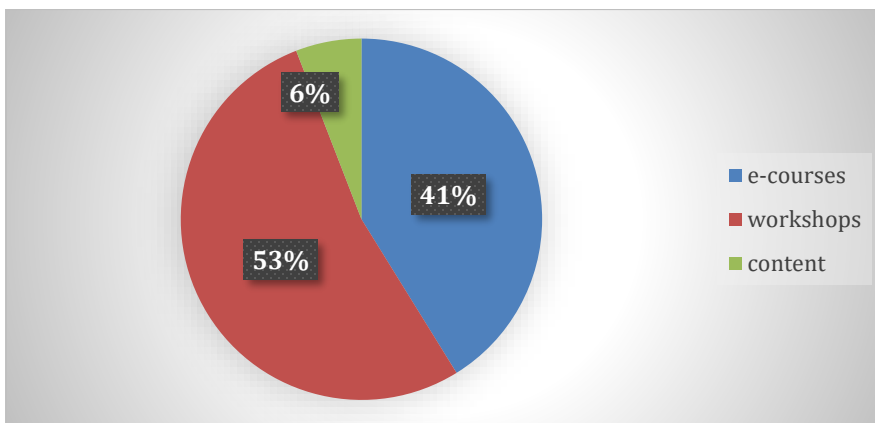
6. Would you like to have common (TEQIP) repository of course material?



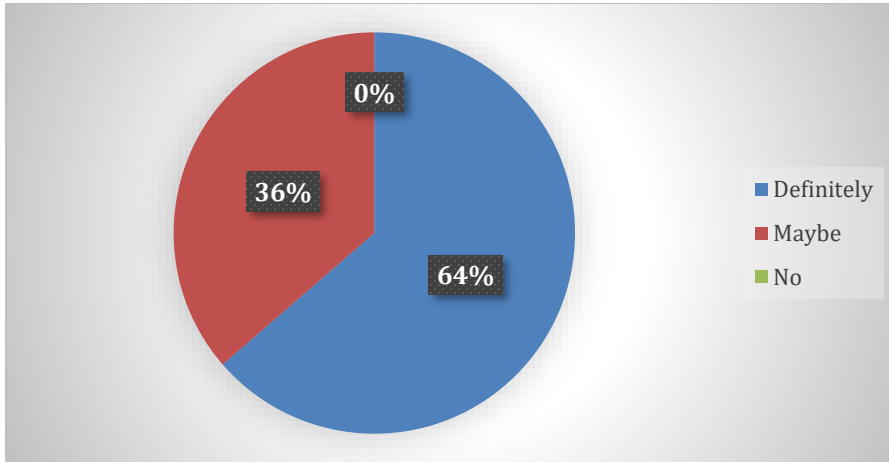
7. Would you like to visit IITK to participate in and develop course material (existing or new)?



8. How can IITK effectively help you prepare for teaching?



9. Would you like to participate in creation of the repository material (course files/lab manuals, question bank etc.)



10. Which subject do you teach?

- Advanced manufacturing, machine tools & CNC, basic mechanical engineering.
- Thermodynamics, Fluid Mechanics
- Computational Fluid Dynamics
- CAD, Machine Design, Applied Numerical Method.
- Surveying, Environment Engg.
- Estimation, Environmental Science.
- Advanced Materials Process, MSC
- Design, Materials
- DBMS, Cloud computing
- Downstream processing
- Strength of materials
- Machine component design
- Traditional fermented, food cereals, Pulses technology

11. What is average student to teacher ratio in your institute?

- 20:1
- 25:1
- 20:1
- 8:1
- 25:1

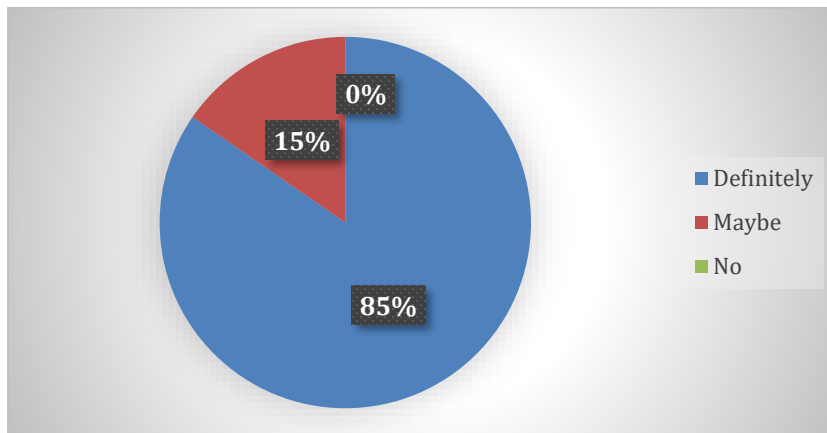
12. How can TEQIP help improve your teaching?

- Providing guidance & help in Lab Development.
- Organizing more workshops
- By shorting study materials.
- By allowing us to take part in internships & workshop
- By explosion to new technology research & approaches
- Organize trendy workshops on technical topics.

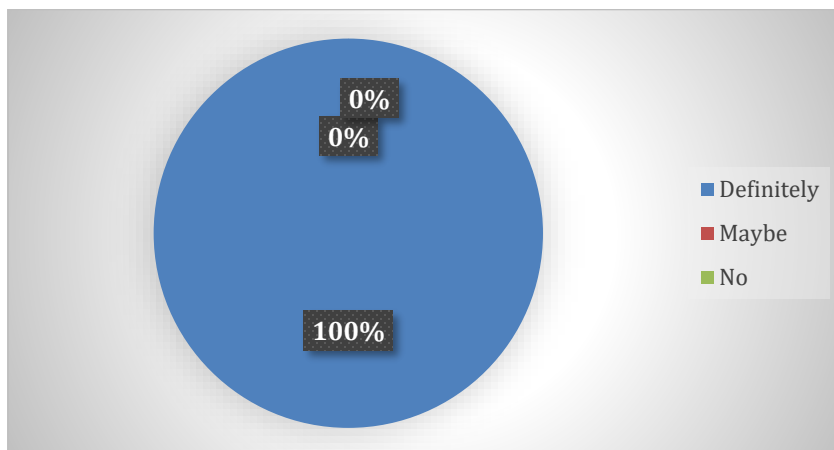
- By collaborating research with IIT.
- Training & workshop

Research

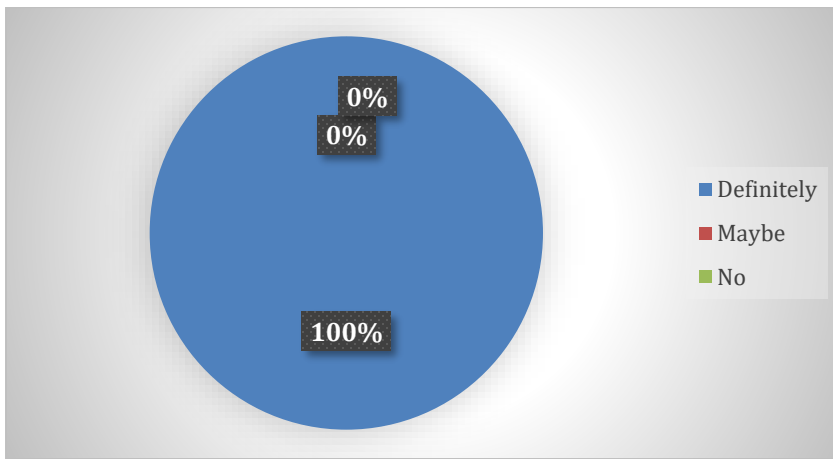
1. Would you like to visit an IIT for short visit/internship/post-doctoral stint, if offered (via TEQIP)



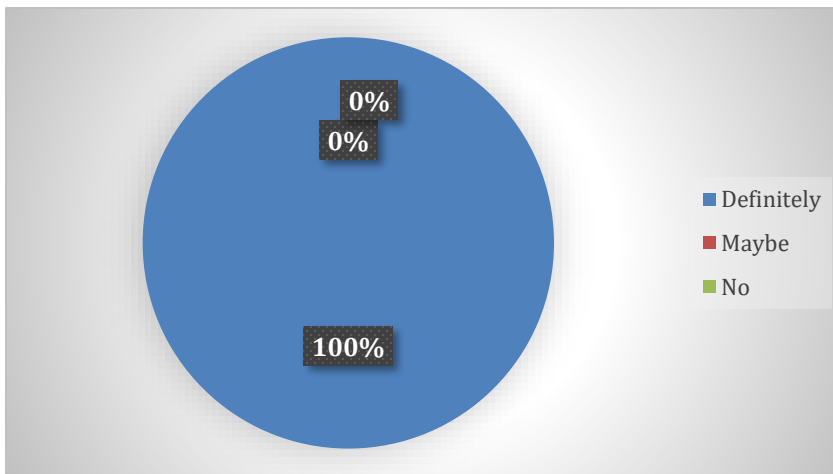
2. Would you like to share/use research infrastructure at IITK, if made available?



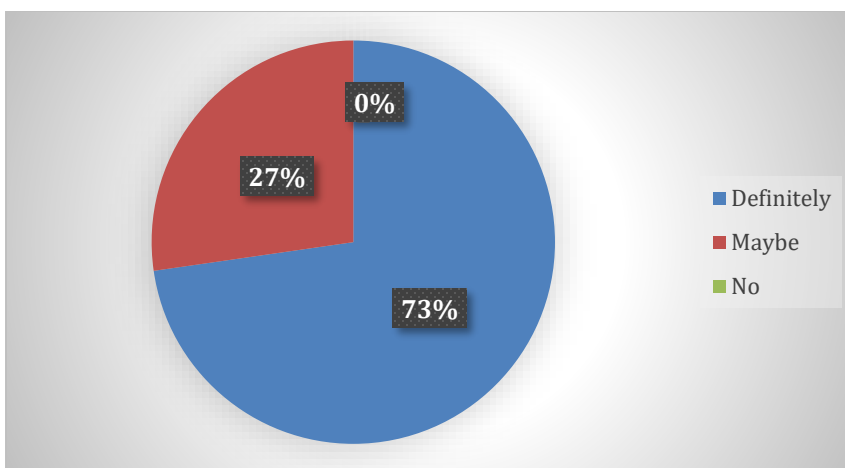
3. Would you like to conduct collaborative research with IITK faculty?



4. Would you like lectures by experts (Indian and international) on niche research areas/topics?



5. Do you want special-topic conferences?



6. How can TEQIP improve your research?

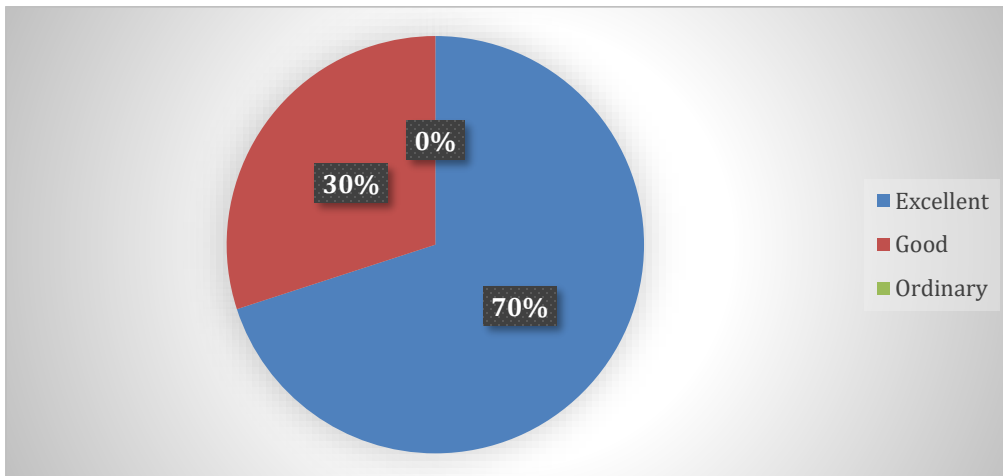
- Sponsoring for research discussion with other faculty at IITs.
- Giving opportunity to work in IITs for industries for at least 3 to 6 months
- Providing resources available in IITK.

- By collaboration research work to IITK.
- Kindly, extend these 30 Days to 45 days.
- Providing seed May be Research work.
- TEQIP IITK, shall offer visiting research program during winter & summer in a piece by piece basic
- Through faculty researcher program
- Student Exchange program.
- Conducting more research oriented workshop
- Regular call for visiting research program for long duration.

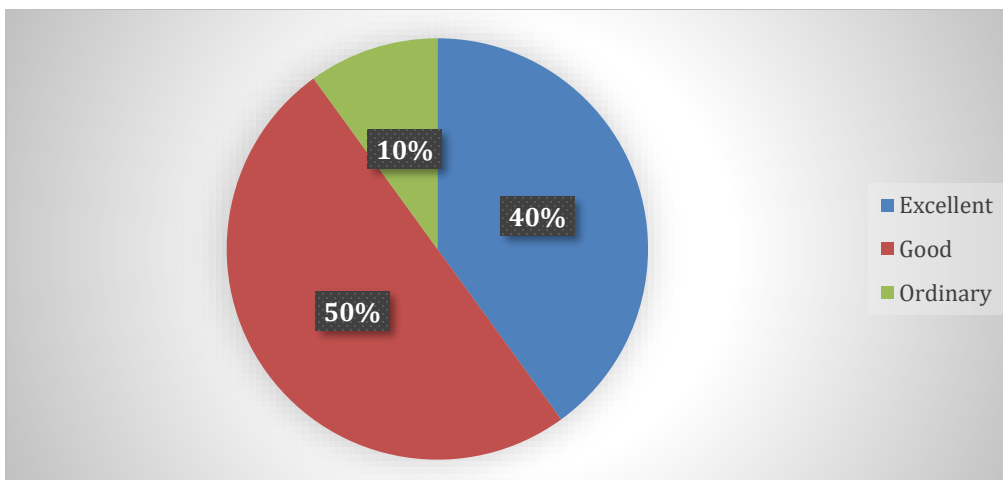
SUMMARY of STUDENT FEEDBACK

Workshop

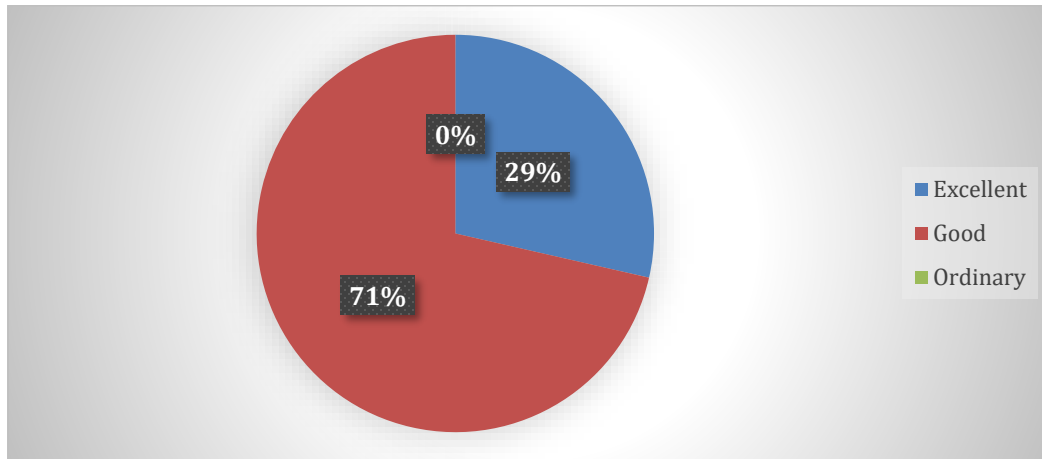
1. Clarity of communication about workshop?



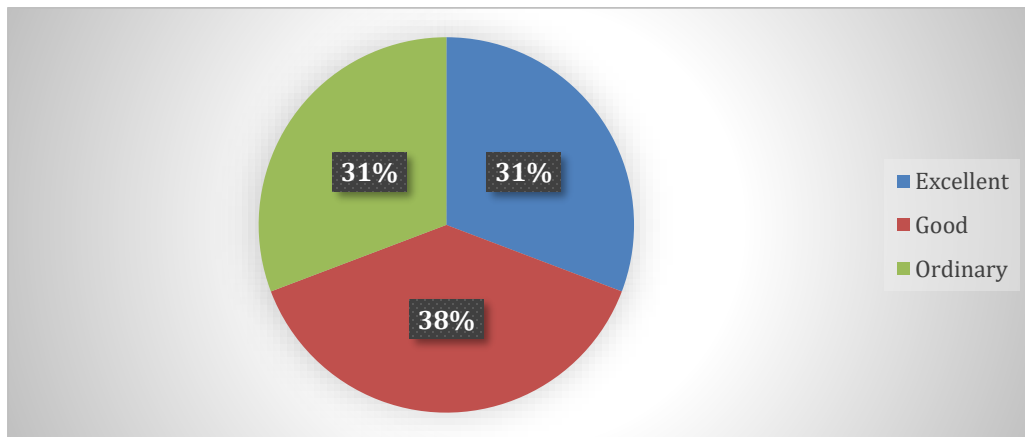
2. Organization of the sessions



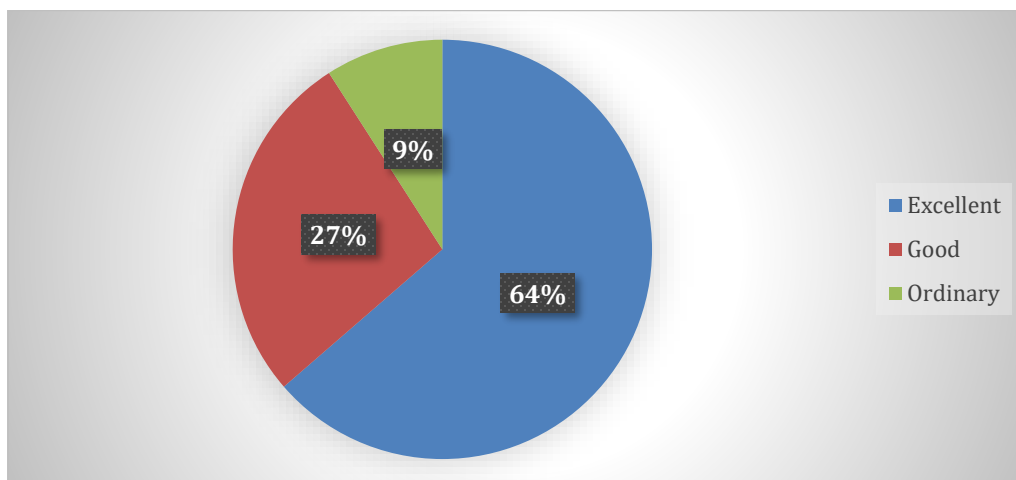
3. Quality of lectures?



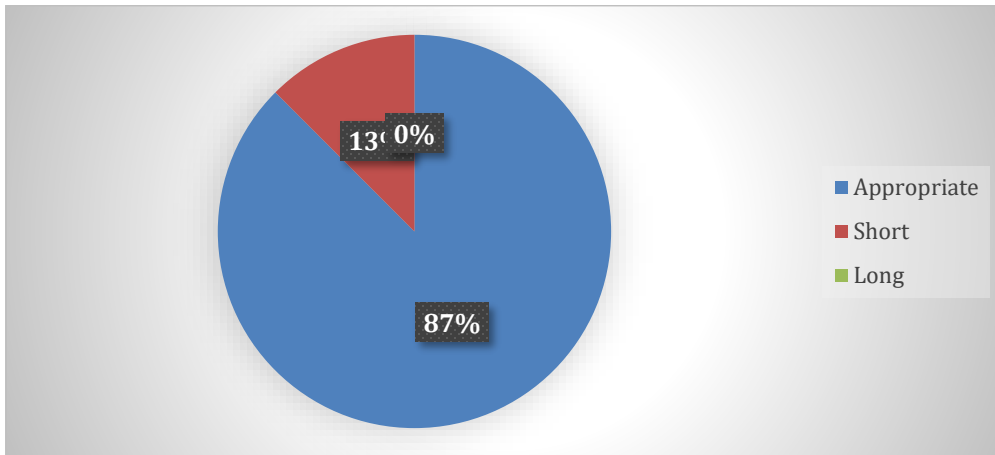
4. Effectiveness of discussions



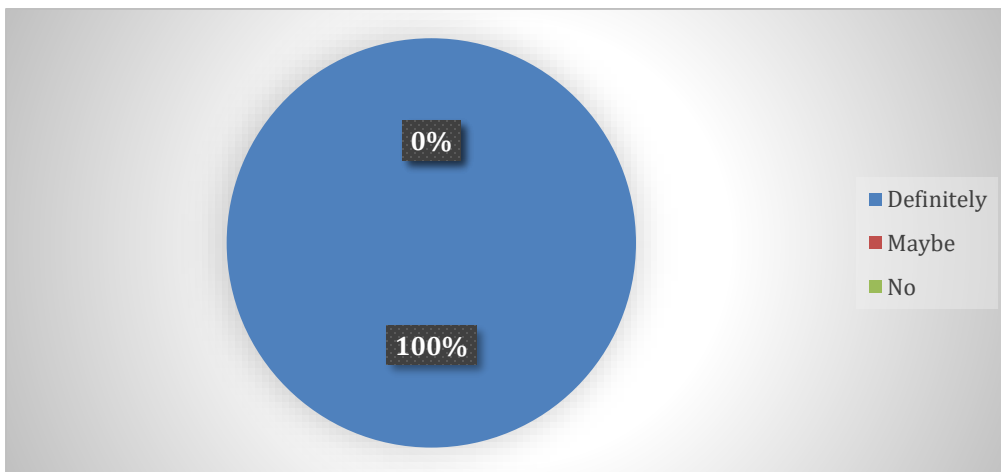
5. Effectiveness of learning experience



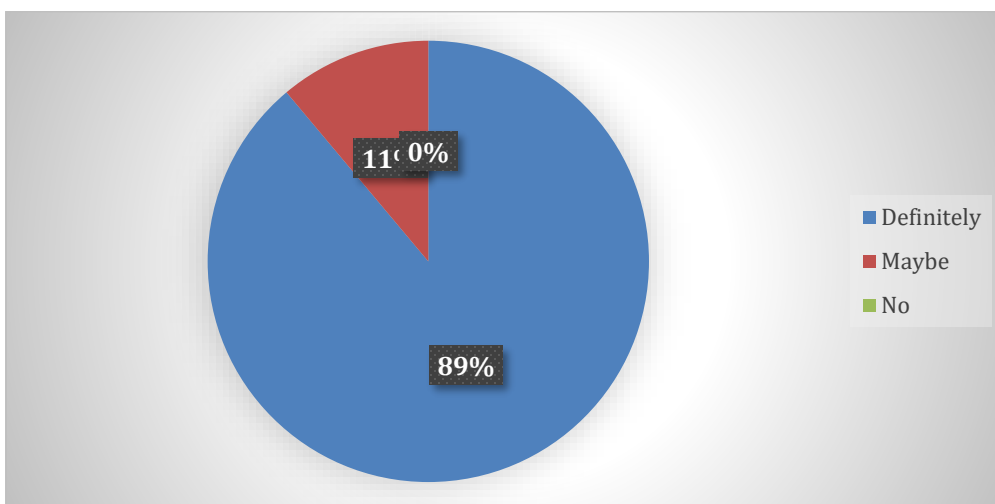
6. Duration of workshop



7. Would you like to have more such sessions?



8. Would you like e-lectures by experts on special topics?



9. Suggest specific topic that you would like additional expert lectures on

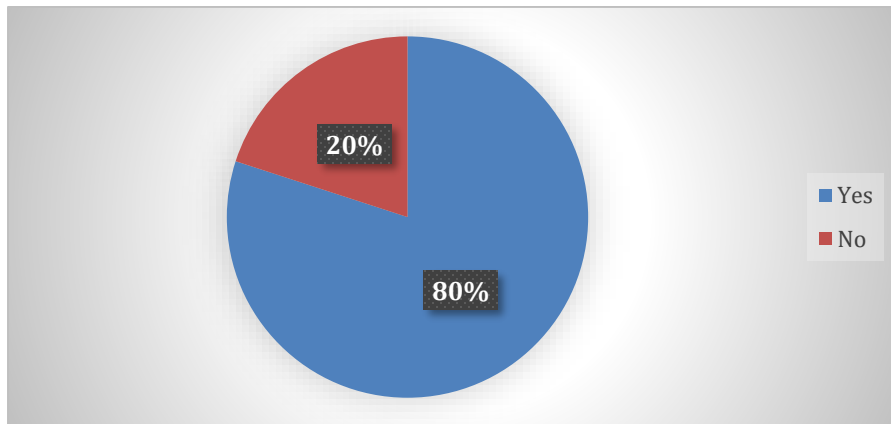
- Polymers nano composite & their applications in diverse field
- On machine learning and the trading market demands
- Image processing, MATLAB
- Android studio and techniques based on it
- On java, php and project handling based on these
- Strength of material
- Production and design
- Projects operations research.

10. Additional Suggestions

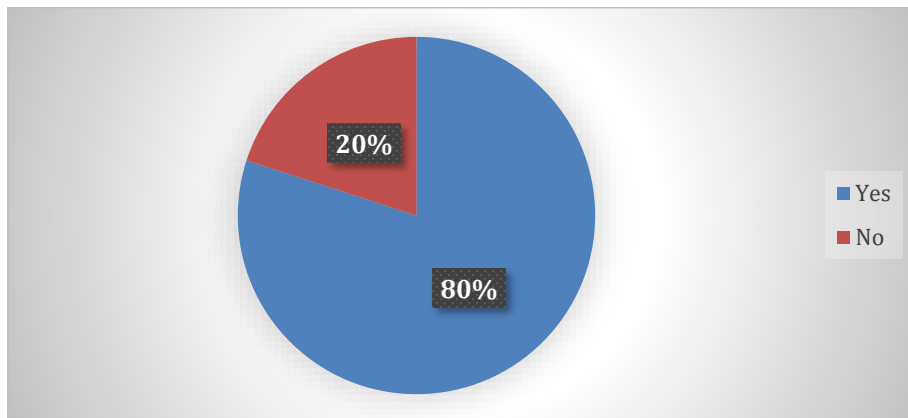
- Experimental work must be conducted nether them lectures only
- By the workshop and program like this
- By giving notes of concern subject
- TEQIP should provide more time duration to enhance my knowledge in my specialization
- More interactions among students required lab work is required

Learning

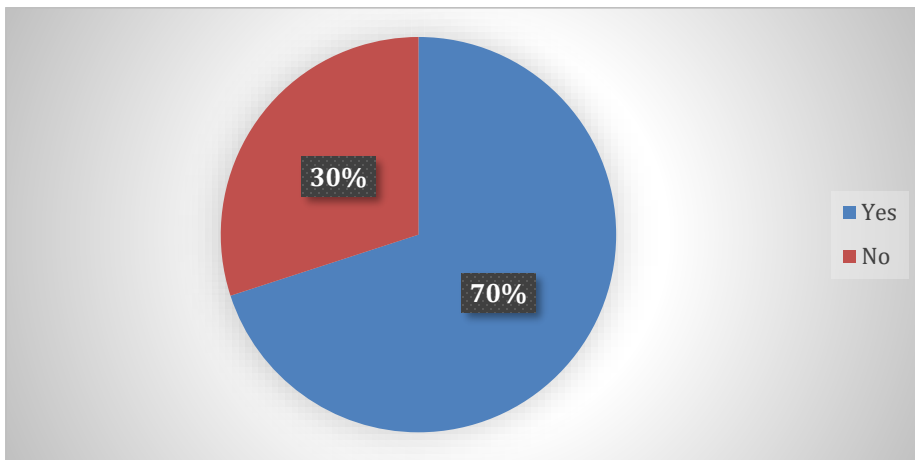
1. Do you get enough class projects?



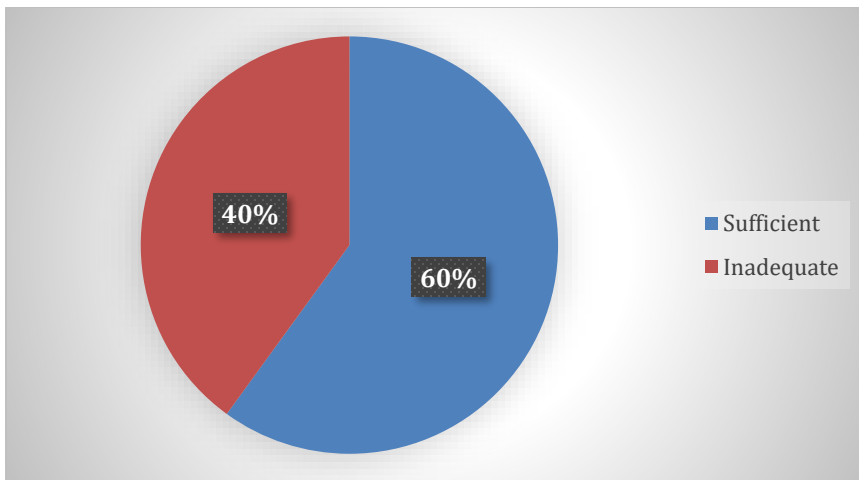
2. Is the learning adequate?



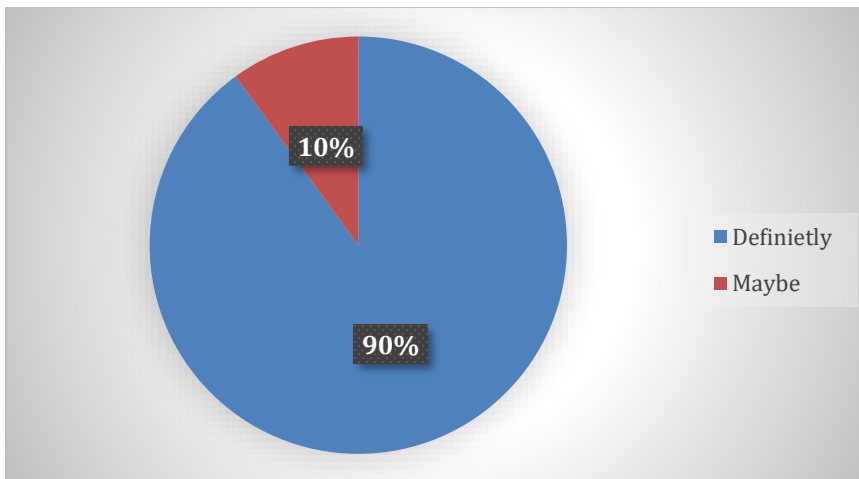
3. Do you have sufficient resources for laboratory courses?



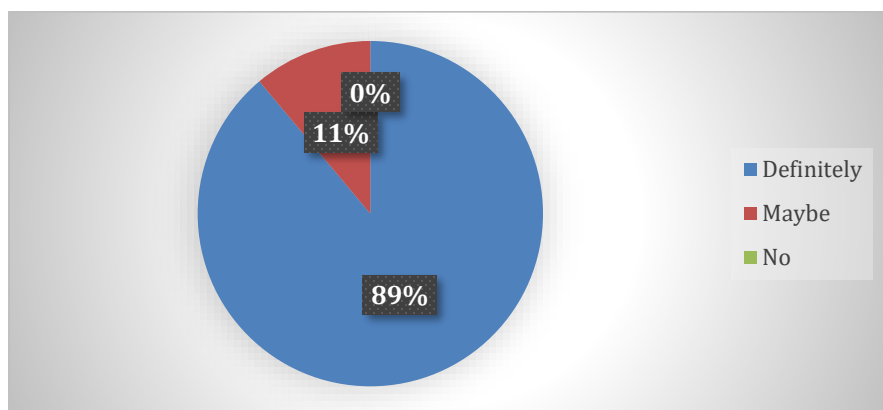
4. Is the library/journal/e-connection support adequate?



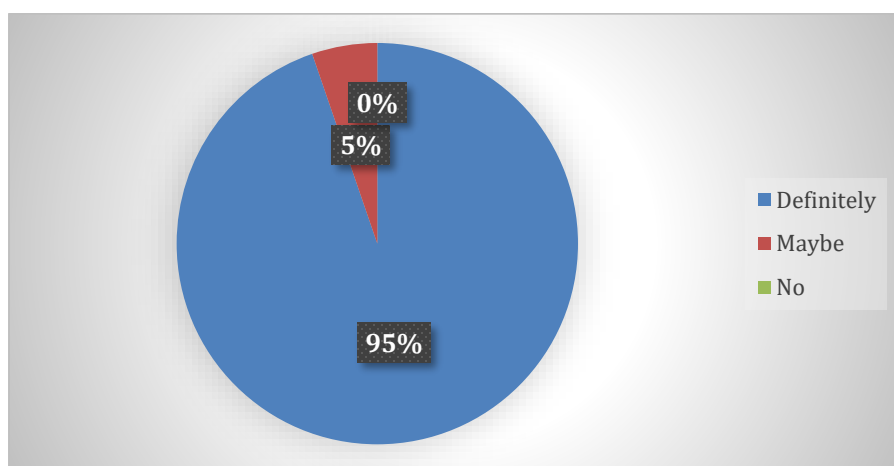
5. Would you like to have common (TEQIP) repository of course material?



6. Would you like to visit IITK to attend specialized courses?



7. Would you like to participate in creation of the repository material (course files/lab manuals, question bank etc.)



8. What is your area of specialization?

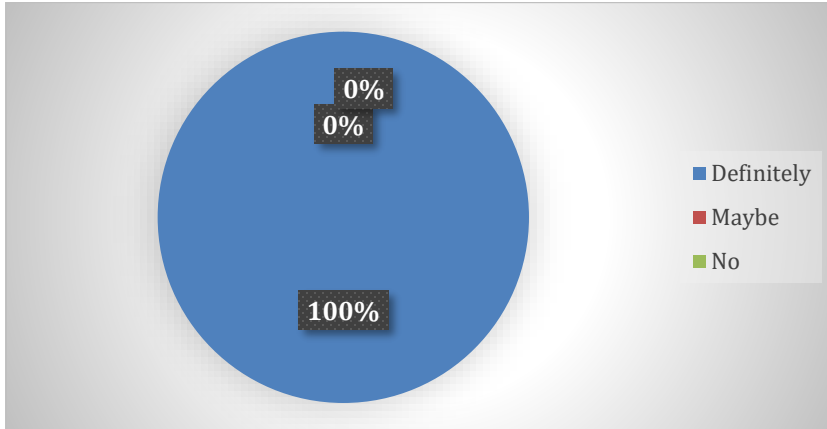
- Polymer chemistry
- JAVA script
- Electrical with electronics
- Php
- Mechanical Engg.
- Design
- Industrial engineering optimization quality
- Advertising (Management)

9. How can TEQIP help improve your learning?

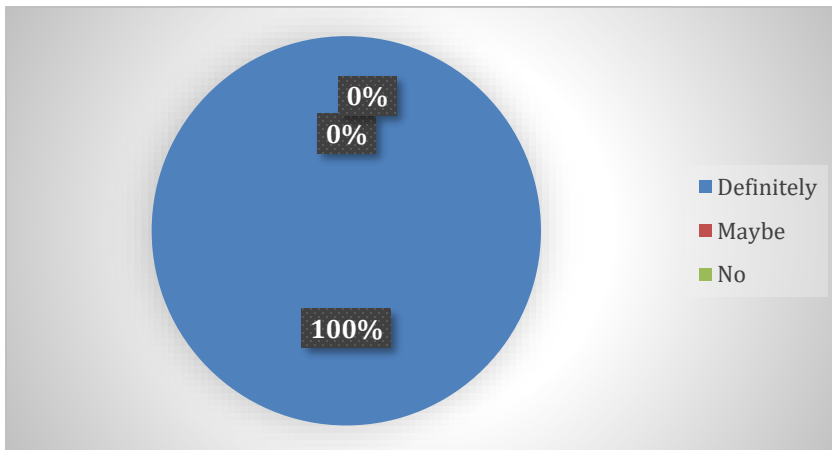
- Specialized workshop, actual & virtual lectures & lab work.
- It may provide study material and online tutorials of the related topics
- TEQIP can give me opportunities to work on specific projects, under the guidance of expertise to improve my knowledge
- By organizing programs more often
- By providing me different types of program
- By conducting online lectures practical works etc.
- By organizing such program here

Research

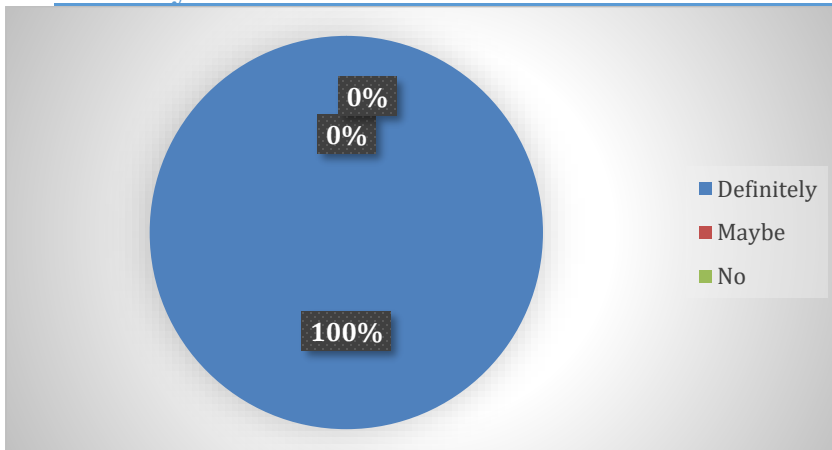
1. Would you like to visit an IIT for short visit/internship/post-doctoral stint, if offered (via TEQIP)



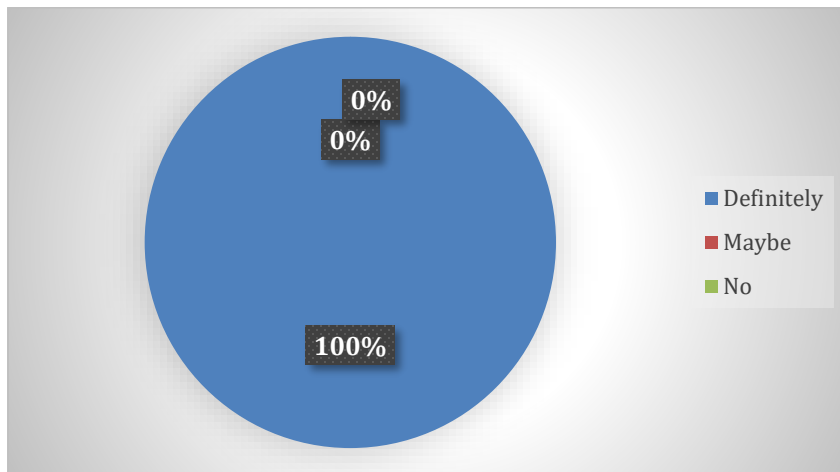
2. Would you like to share/use research infrastructure at IITK, if made available?



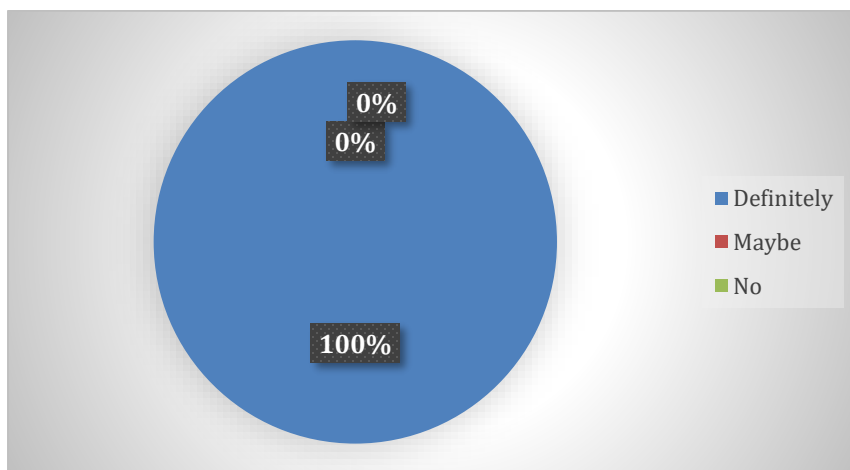
3. Would you like to conduct collaborative research with IITK faculty?



4. Would you like lectures by experts (Indian and international) on niche research areas/topics?



5. Do you want special-topic conferences?



6. How can TEQIP improve your research?

- Through conducting more experimental viz. Lab work rather than theory as research means practical evidence & not hypo thesis only.
- TEQIP has given me chance to work under one of the best professor in our country and has increased my knowledge
- By providing suitable lab facility and expert's lectures
- By also organizing some online courses