



अखिल भारतीय तकनीकी शिक्षा परिषद्  
All India Council for Technical Education

# AICTE

QUALITY  
INITIATIVES  
IN TECHNICAL  
EDUCATION



# REVISION OF CURRICULUM

# Disciplines covered in Model Curriculum (UG)

## Emerging areas



AI



IoT



Robotics



Quantum  
Computing



Block chain



Data Science



Cyber Security



Design



AR/VR



3d printing

## Under Graduate

Computer Science

Civil Engineering

Electrical Engineering

Mechanical Engineering

Electronics &

Communication Engg.

Chemical Engineering

Metallurgical Engineering

Architecture

# Disciplines covered in Model Curriculum(PG)

## Emerging areas



AI



IoT



Robotics



Quantum  
Computing



Block chain



Data Science



Cyber Security



Design



AR/VR



3d printing

## Post Graduate

Computer Science Engineering

Electrical Engineering

Mechanical Engineering

Civil Engineering

Chemical Engineering

Electronics & Telecommunication

MBA & PGDM

# Model Curriculum Development: Institutions & Industry Experts



- Most of the Technical Universities adopted **AICTE Model Curriculum**
- Implementation from A/Y **2019-20**.
- UG Credits reduced to **160** from **200** to **220** and in line with requirements of **Industry 4.0**.
  - PG Credits reduced to **68** in Engineering & **102** in Management.



- **UG Model Curriculum**
  - **Eleven** Committees
  - **Experts (33)** from IITs
  - **Experts (8)** from industry



- **PG Model Curriculum**
  - **Experts (22)** from National Institutes of Repute
  - **Experts (12)** from **Industry**

# Salient Features of New Model Curriculum

1

Encourages Innovation & Research

2

Better Hands on experience

3

Encourages Problem solving Approach.

4

Flexibility in Engineering Disciplines

5

Induction Program

6

Mandatory Summer Internship

7

Virtual Laboratories

8

Courses on Constitution of India, Environment Science & Essence of Indian Traditional Knowledge

The background of the slide features a faded image of three business professionals in a meeting. A large, semi-transparent diagonal overlay in shades of orange and yellow is positioned on the left side of the image. The text 'MANDATORY INDUCTION PROGRAM' is centered on the right side of the slide in a blue, sans-serif font.

# MANDATORY INDUCTION PROGRAM

# Activities under Induction Program

3 Weeks

- Physical activity
- Creative Arts
- Universal Human Values
- Literary
- Proficiency Modules
- Lectures by Eminent People
- Visits to local Areas
- Familiarization to Department/Branch



# Activities under Induction Program (So far...)

Workshops conducted So far: **100+**.

Faculty members participated: **9,000+**.

Budget of **Rs. 6.00 cr** approved by Council

Induction Cell established at AICTE to monitor induction activities

Feedback from **students, faculty** and **institutions** has been collected to **access the impact** of Induction program

70,000+ Students, 24,000+ Teachers and 1200+ Institutions submitted feedback.

Feedback Analysed to improve the induction program

The target is to involve **100% students** entering in technical education undergo Induction program

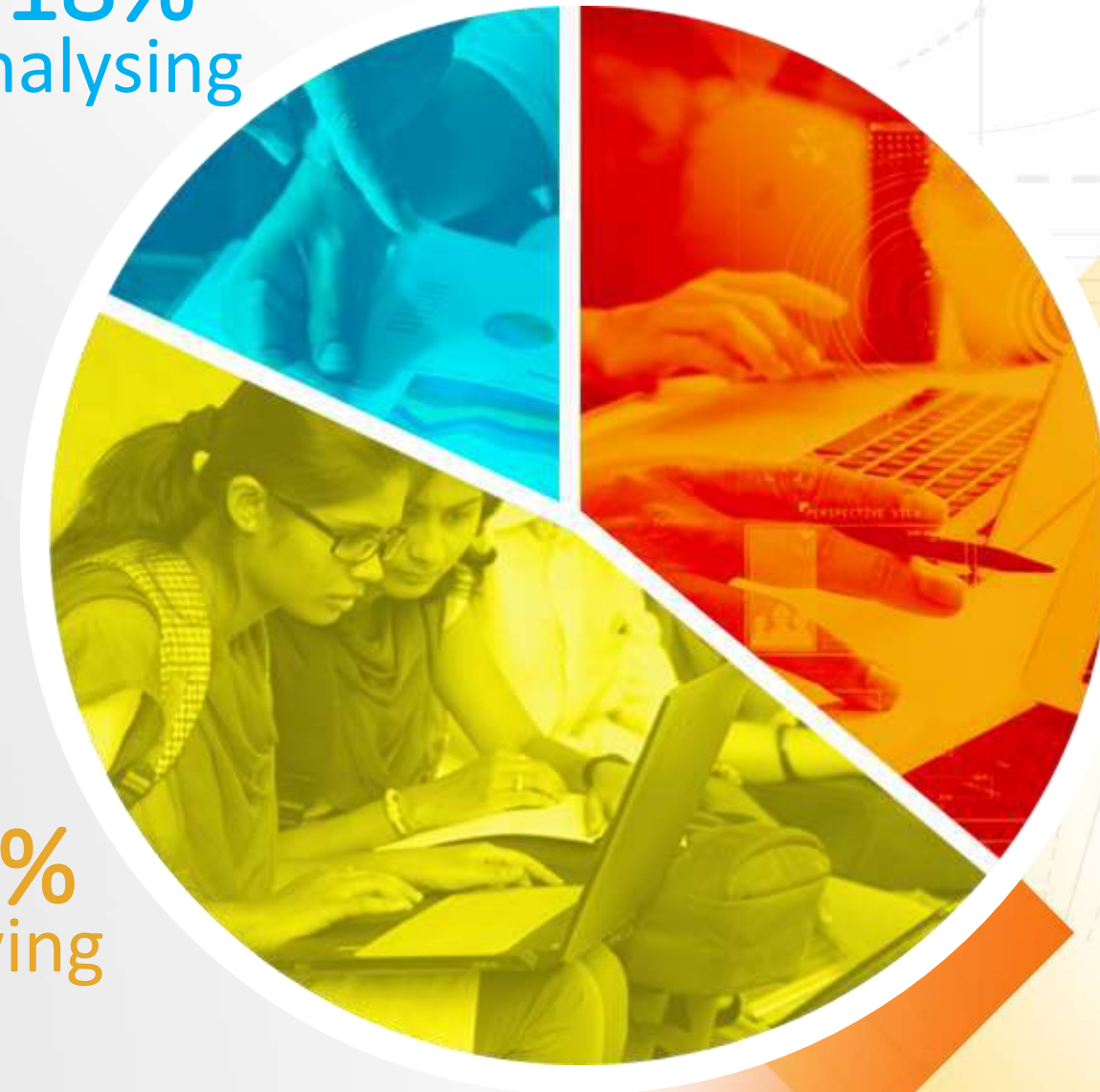
EC approved **100 projects** of **Rs 50000** each for faculty members to study impact of induction



# EXAM REFORMS

# Exam Reforms

18%  
Analysing



36%  
Understanding

46%  
Applying

# Exam Reforms

## Workshops

Nine workshops Conducted on **Exam Reforms for Controller of Examination, Deans and Senior Faculty members Universities and Institutions.**

**1600**

Number of faculty trained till now

**25**

Number of Workshops planned in next 3 months

## Faculty training

**Train the trainer** workshops to train faculty from **NITTTRs** and identified faculty from the workshops already conducted.

## Target

**10%** faculty in **next one year** targeted to be trained through workshops.

**09**

Number of **Workshops** conducted till now



# INTERNSHIP POLICY

# AICTE activity Point Programme



- Recommends **1000 hrs** Activity Programme for each **B.Tech student**.
  - **600-700 hrs** for Internship requirements
  - **300-400 hrs** for Community service & Allied activities.

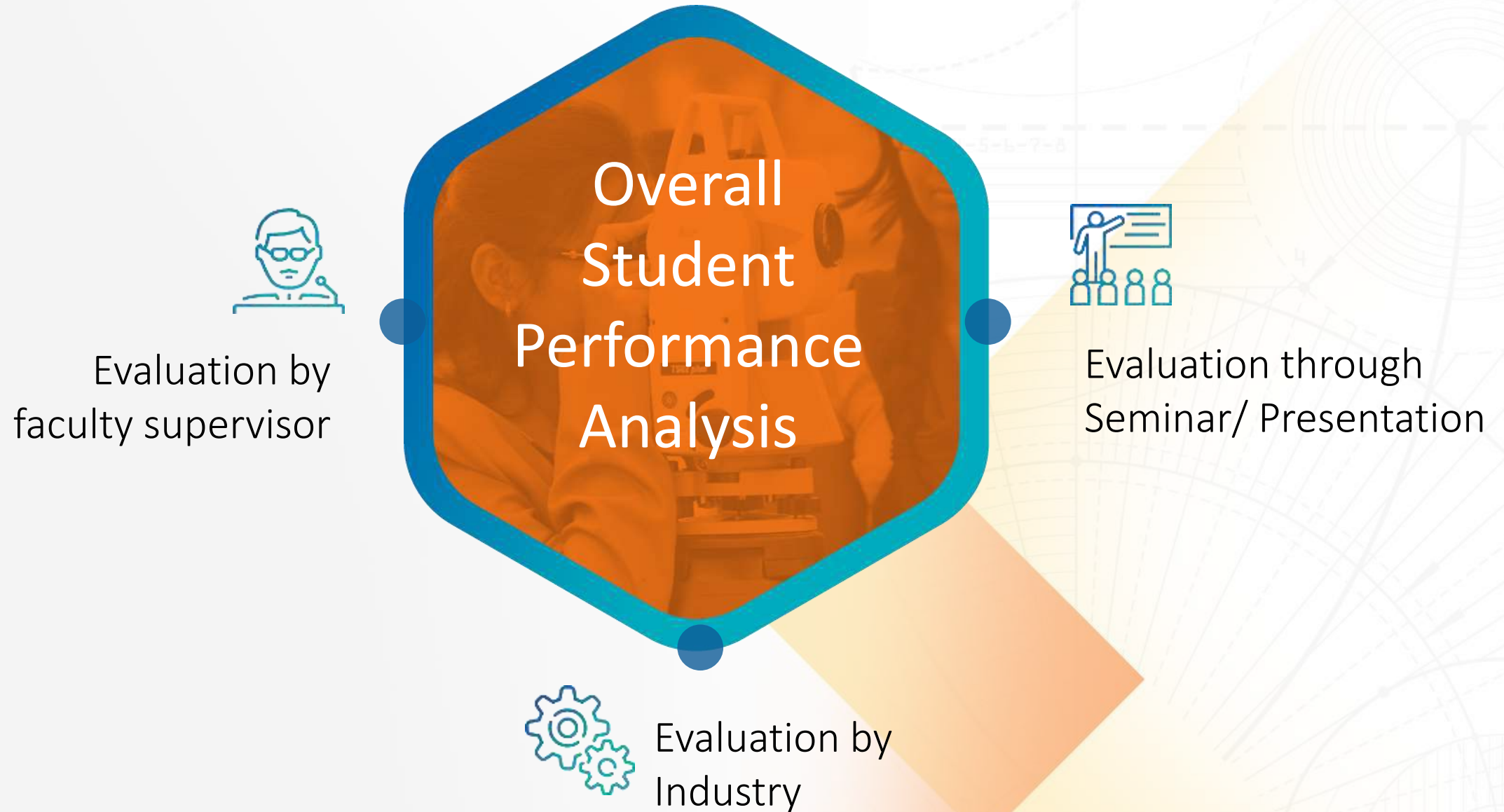


- Recommends **700 hrs** Activity Programme for each **Diploma student**
  - **450- 500 hrs** for Internship activities
  - **200-250 hrs** for Community service & allied activities.

## Budget

Each institute to allocate **1 %** of their total budget for these activities

# Monitoring & Evaluation





## Activities for Students, Faculty & Institutions

- AICTE – ICT Academy developed Internship portal. **211 institutions, 8000 students** and **142 industries** already registered.
- **4 Internship policy workshop** organised for Eastern, Western, Northern, North west and Southern regions
- Approx. **500 Industries and 1000 Institutes** TPO and Heads participated.
- Industries meet scheduled to register **13,000 establishments enrolled with BOATs/ BOPT at AICTE Internship portal** during the workshop. Communication to register on portal developed by AICTE & ICT Academy
- Two Industry meets organized at Kolkata & Pune. Around **200+ industry representatives** participated.
- MoUs with various organizations to facilitate students in getting internships.
- 5 MoU with Industries have been made mandatory for Institutions.





# TEACHER TRAINING



# Training Modules During Induction of Teachers

General Orientation towards Technical Education

Inculcation of Values and Attitudes

Communication Skills

Instructional Planning & Classroom Delivery

Technology Enabled Learning and Life-long Self-learning

Effective Modes of Student Evaluation

Creative Problem Solving, Innovation and Meaningful R & D

Institutional Management & Administrative Procedures<sup>21</sup>



Summer  
Internship



Mentored  
Teaching

## Online courses

NITTTTR developed online courses for four modules and remaining modules will be developed by April 2019.

## Faculty Development Programs

Around 300 Faculty Development Programs organized in collaboration with ISTE to train approx. 12,000 faculty members.

## Mandatory clearance

For Incumbent teachers clearing eight modules mandatory for upward movement.

# Teacher Training

## 08 MoUs

Technical Universities to organize Faculty Development Program.

## Five Faculty Development Programs

organized in thrust areas as identified by Reddy Committee (Perspective Plan).

## Mandatory training

For Inductee teachers, attending one year teachers training program is mandatory.



# PERSPECTIVE PLAN

# Overview

A committee under the **Chairmanship of Shri. BVR Mohan Reddy**, Chairman, Board of Governors, IIT, Hyderabad and having representatives of FICCI, CII, NASSCOM, ASSOCHAM and PHD Chamber was constituted on **18<sup>th</sup> October 2018** for preparing short term and medium term perspective plan.

The committee submitted report & **Executive Committee (EC)** on **27<sup>th</sup> December 2018** approved

# The main recommendations of the committee are :

Courses on following emerging technologies must be included :



AI



IoT



Robotics



Quantum Computing



Block chain



Data Science



Cyber Security



Design



AR/VR



3d printing

Greater focus on multi-disciplining courses by reducing seats in conventional disciplines and converting existing seats into these courses.

NITTTR Chandigarh Prepared curriculum of the above 9 (nine) Technologies

Workshops organized to train the faculty based on New Curriculum. So far, 8 workshops have been organized and around 400 faculty members have been trained.



# MANDATORY ACCREDITATION

# Mandatory Accreditation



Mandatory for all technical institutions to have their **60% programs NBA accredited in next four years**, else no extension of approval will be granted.



**Approx. 48 Margdarshaks** identified and trained to mentor the institutions.



**Eleven institutions** selected under **scheme Margdarshan**.



The background features a laboratory setting. On the left, a woman in a lab coat is writing on a clipboard. In the center, there is a piece of laboratory equipment, possibly a spectrophotometer or a similar analytical instrument. On the right, a man in a lab coat is looking down at something in his hands. The entire scene is overlaid with a semi-transparent yellow and orange diagonal graphic on the left side.

# INDUSTRY READINESS- MANDATORY CELL

# Attributes that Employers look for



## Skills

- Planning skills
- Management skills
- Organisation skills
- Presentation skills
- Entrepreneurial skills
- Listening skills
- Communication skills
- ICT skills



## Attributes

Good appearance	Self-motivation
Manners	Good customer service
Creative	Time management
Dependable	Positive attitude
Trustworthy	Tolerant
Understanding	Hard working
Team player	Friendly
Confident	Qualification

# Industry readiness - mandatory cell



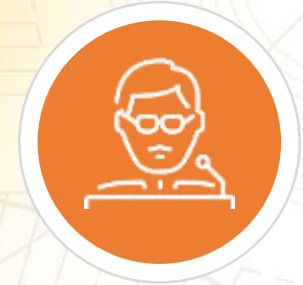
Mandatory for all the intuitions to have industry institute cell.



Every institute has to sign 5 MoUs with industry.



Various organisations given presentation on how to impart soft skills to the students



Proposals of organisations examined by group of Experts.



# INNOVATION/ START-UPS

# Innovation cell



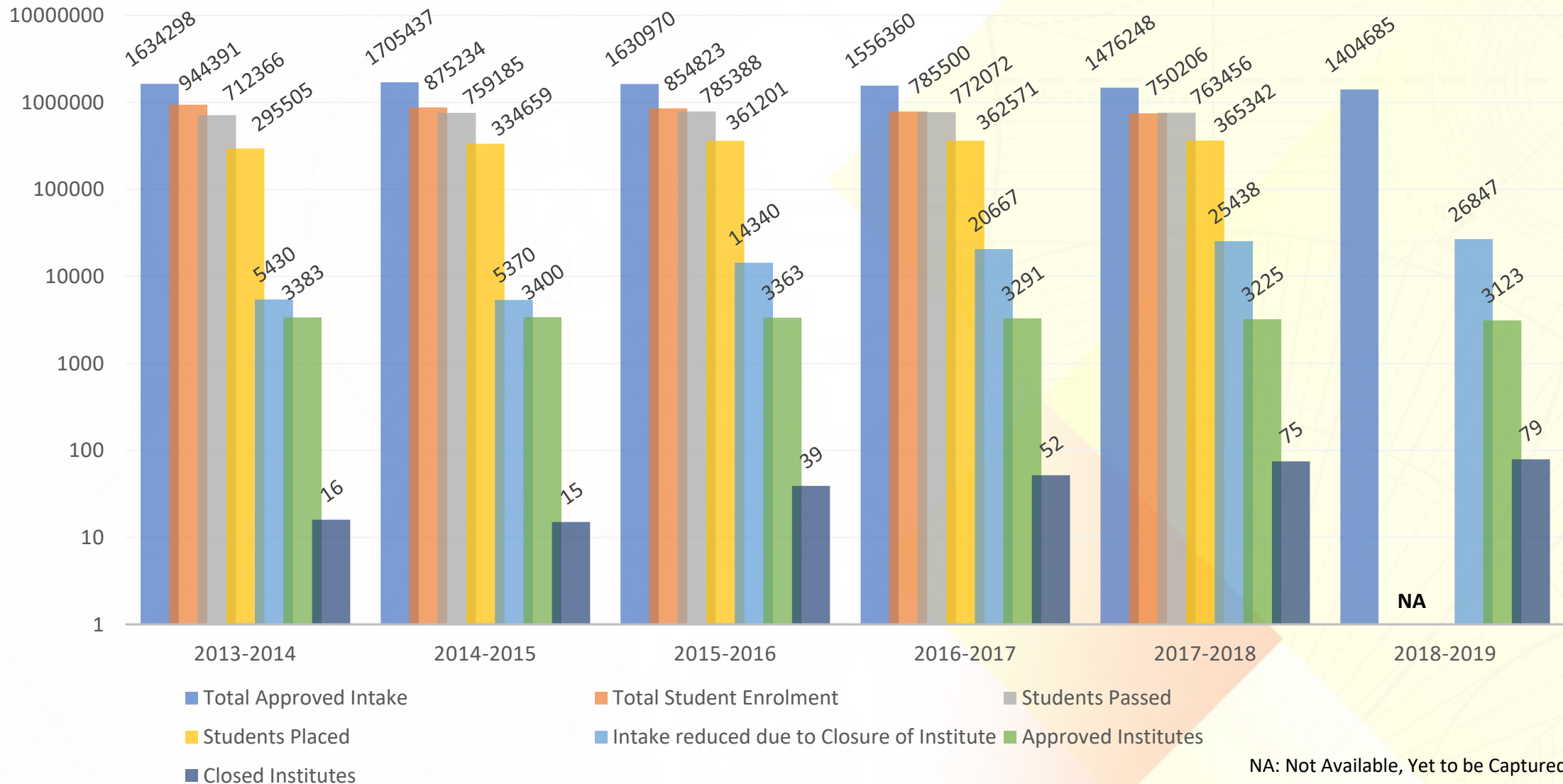
# Major Programs





# STATISTICS: IMPACT OF INITIATIVES

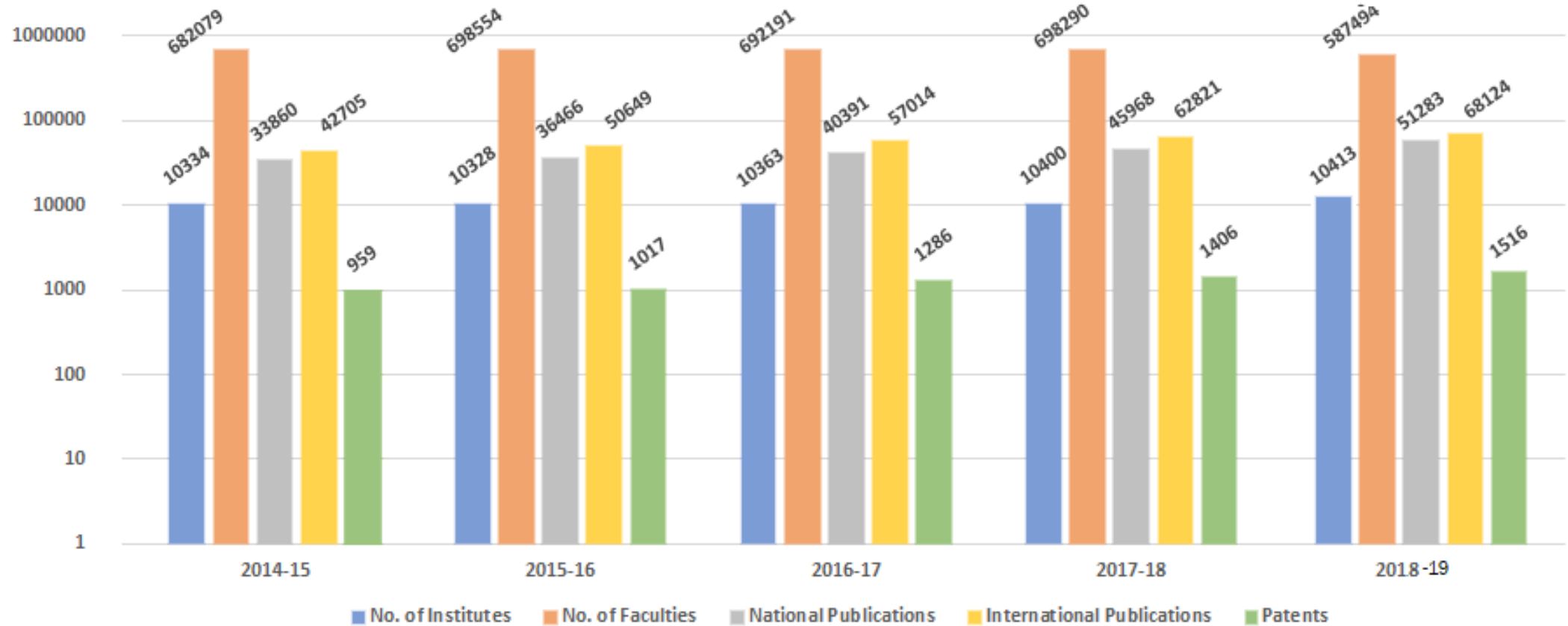
# AICTE Approved Institutions, Intake, Enrolment, Passed, Placed...



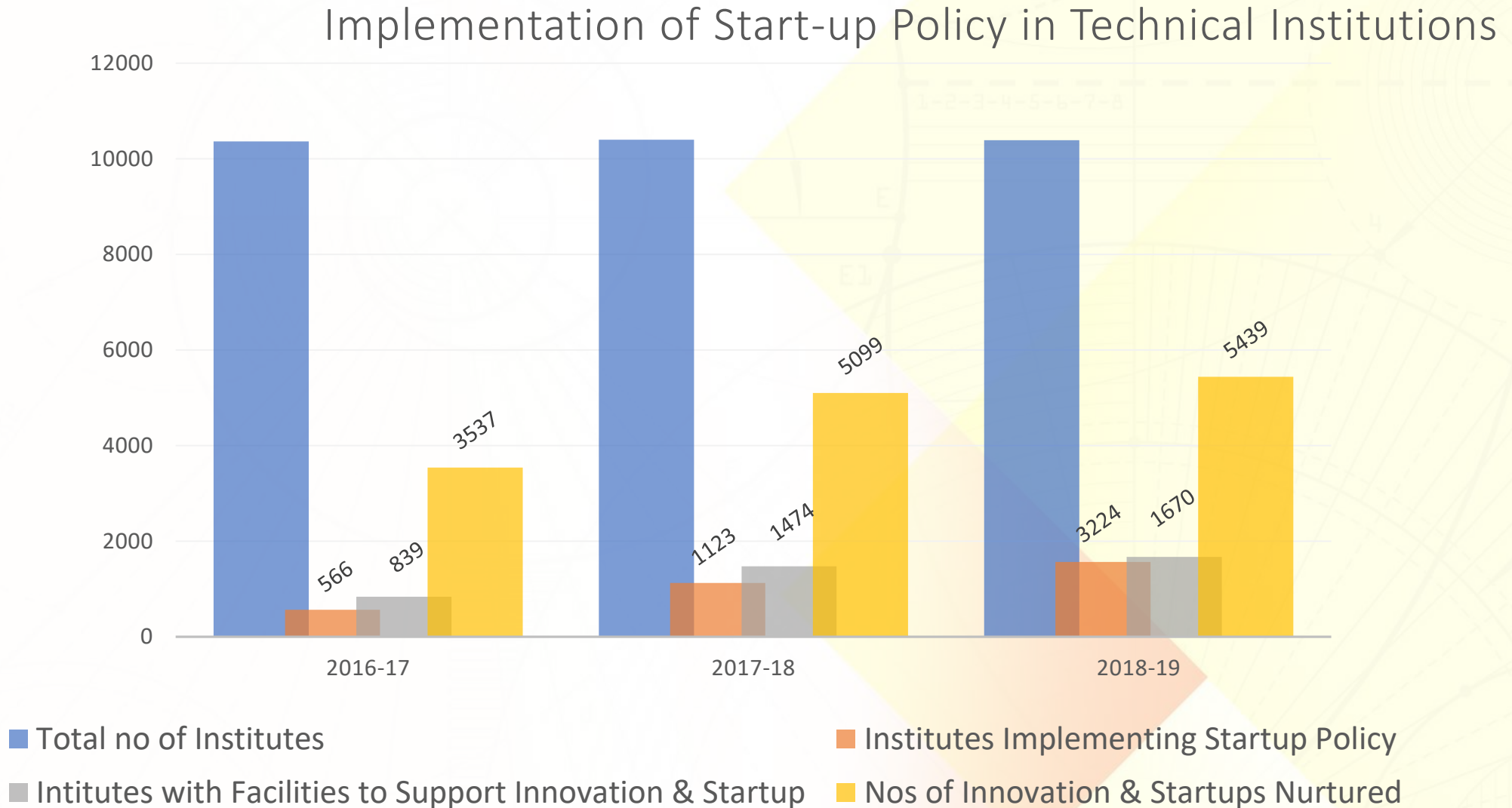


# AICTE Approved Institutions: Faculty Publications and Patents

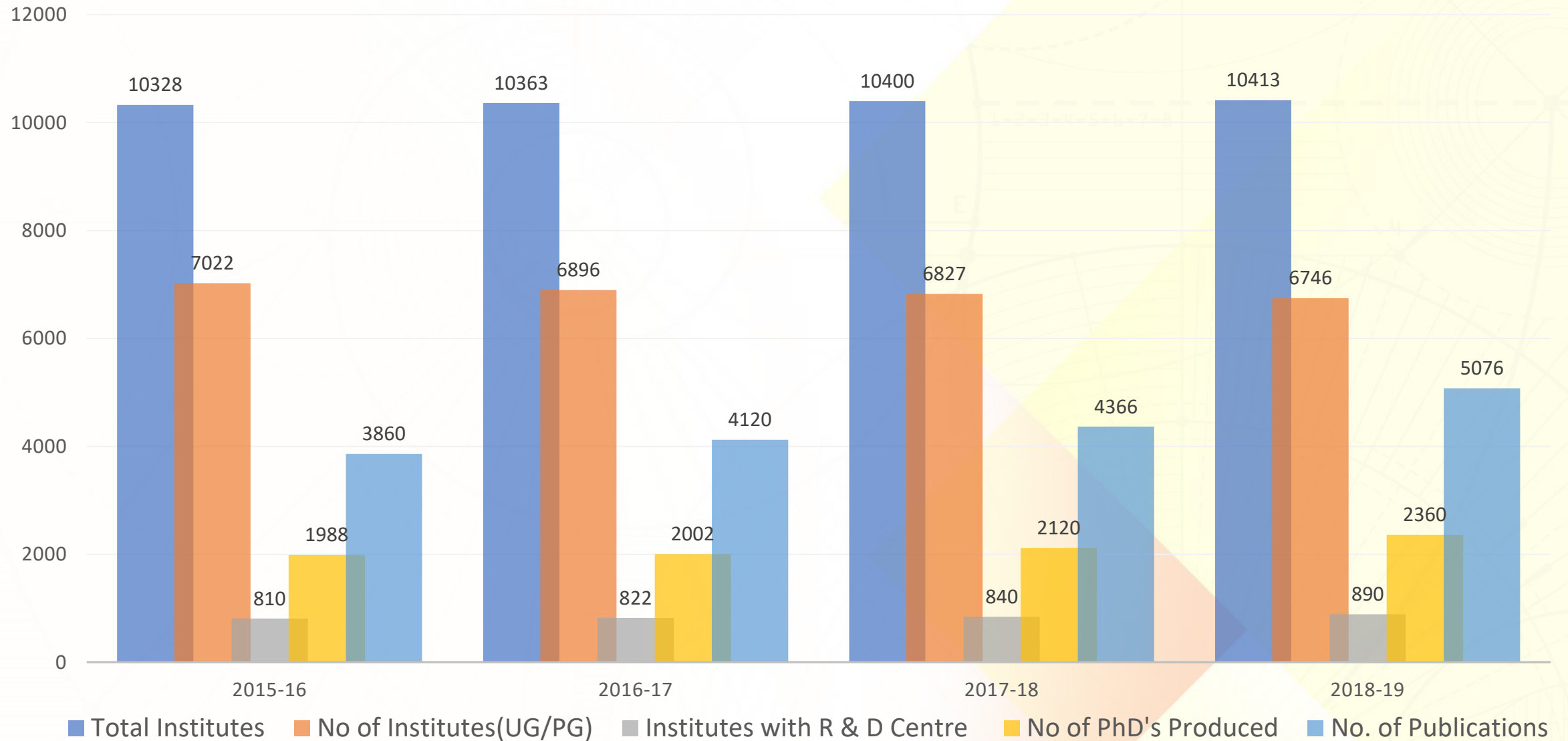
## Faculty Publications and Patents



# Implementation of Start-up Policy in AICTE Approved Institutions



# AICTE Approved Institutes with R & D Centres and Publications





**Thank you!**