

**Foundation for Advancement of
Education and Research**

(A non-profitable Trust)

G5, Swiss Complex, 33, Race course Road

Bangalore – 560 001, India

E-mail : office@faer.ac.in

Website : www.faer.ac.in



Prof. D. K. Subramanian

President

23rd June 2017

To,

The Principals/Placement Directors/ Head of Departments of
Communications Engineering, Computer Science and Engineering,
Electrical Engineering, and related disciplines
Engineering Colleges / IITs / NITs / Universities

Sub: FAER - McAfee Scholar Search Program

Dear Sir / Madam,

The **Foundation for Advancement for Education and Research (FAER)**, a registered non-profit trust, promoted by academics and industry leaders, has the main objective of improving quality of education through faculty empowerment programs on current technologies and starting of long-term programs of relevance with a view to reduce information divide in our country. FAER has been active in the past three years in conducting several programs for faculty and has also piloted a 15 months post diploma in software testing approved by Government of Karnataka to be run in several polytechnics. It has taken eminent faculty to students everywhere through its Reach-to-Teach program.

FAER has been conducting FAER Scholar Program for the past ten years successfully. The program is focused towards areas of
a) Computer Science and IT b) Communication
c) Power and Energy Systems d) Signal Processing
e) Environment and Ecology f) Rural Technologies g) Health

care Technologies h) Labour saving technologies for Women and i) Mobile Applications. We expect the projects proposed by students should have some innovative component in them and should be implementable. It can also be development of some devices. Kindly inform your students and encourage them to participate in this prestigious activity. This will enhance the image of students and your institution also. The rules / poster / format for proposal are put up in our web site www.faer.ac.in. Details of our previous awards are available in our web site. Kindly provide wide publicity and encourage your students to participate in this program, please.

Students submitting good proposals have a chance to get a small financial grant to execute them. The projects will become benchmarks of quality.

We received good support from all of you for the previous years for the program. We hope you will co-operate with us in making this all India effort a great success.

Thanking you and with greetings,

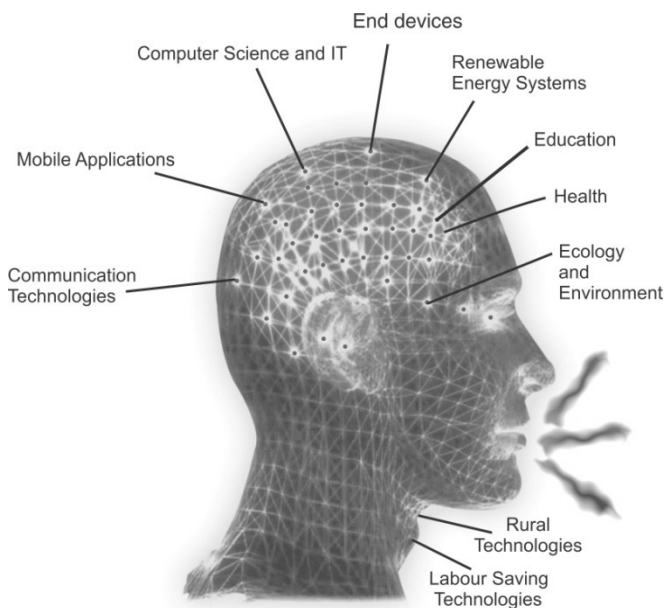
A handwritten signature in black ink, appearing to read 'D.K. Subramanian', with a stylized, cursive script.

(D.K. Subramanian)



FAER - McAfee SCHOLAR PROGRAMME : 2017-2018

Website : www.faer.ac.in



Foundation for Advancement for Education and Research (FAER) announces FAER - McAfee Scholar Program to select scholars from engineering colleges based on a project in the areas of 1) Computer Science and IT 2) Mobile Communications 3) Renewable Energy Systems 4) Signal

Processing 5) Rural technologies 6) Health care Technologies 7) Labour saving Technologies for Women 8) Ecology and Environment 9) Mobile Applications.

Selections will be done by Foundation for Advancement for Education and Research (FAER). It consists of two stages.

Stage 1 : FAER will receive project proposals from students in engineering colleges, screen them with the help of experts and select projects for funding. An amount to a maximum of Rs. 5000/- will be reimbursed to the project team after their completion of the project.

Stage 2 : Selection of **"FAER –McAfee Scholars"** based on the evaluation of the completed projects through a Seminar-cum-Exhibition and best projects will be awarded with Cash Prize and Certificates in FAER Scholar Awards Presentation Function.

Dates to Remember

Last date for receipt of hardcopy of the proposals for projects	:	30th October 2017
Project Approvals by FAER	:	20th January 2018

FAER Scholar Awards

First Prize	:	Rs. 1,00,000/-
Second Prize	:	Rs. 75,000/-
Third Prize	:	Rs. 50,000/-

For further details, format for submitting project proposals please visit FAER website.



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FAER - McAfee SCHOLAR PROGRAMME : 2017-2018

Rules of the Contest

1. Bonafide students doing B.E. in recognized institutions are eligible to participate in this contest.
2. Some of the related subtopics are
 - Computer Science and Information Technology
 - Communications technologies and concepts (digital, optical, wireless, satellite etc.)
 - Power and Energy Systems
 - Signal Processing
 - Applications
 - Innovative applications of systems for problems related to rural areas and disadvantaged people - health, education, renewable energy, labour saving technologies, rural technologies, etc.
3. The project proposals submitted by participants should pertain to any of the above topics or related areas. It should discuss the merits of the topic chosen. It should deal with new ideas / experiments / devices; innovation and details of implementation as well as its impacts on society.

4. The project team (batch) can have upto a maximum of **four** students.
5. The team should submit a letter from the principal of their institution stating that they are bonafide students of the institution studying for the degree in the final year.
6. The team should submit the project proposal in the prescribed form signed by their project advisor and principal.
7. The team should submit a declaration that the work proposed will be taken up exclusively for the FAER Scholar Contest.
8. The team should also submit an undertaking that if the project is selected, they will take it up, complete within three months and submit the detailed project Report to FAER.
9. The Principal / HoD should give us an assurance that facilities required will be provided to the selected students. This may be part of the proposal.
10. Project proposals should be sent both **hard copy** and **soft copy** (by email) containing all details as per the format declaration and undertaking to our address by 30th October 2017.
11. Project proposals will be reviewed and evaluated by a team of experts. The experts will select projects suitable for funding and also decide on the grant. The announcement of projects selected for this programme will be on 20th January 2018.
12. Evaluation will be based on
 - Relevance to our focused areas
 - Originality / innovation / novelty
 - Technical strength
 - Utility / applicability and Feasibility

Methodology and approach including implementation.

- Analytical capabilities

Proposals without proper details may be rejected.

13. Selected teams will be informed by us along with conditions and details for submission of the project report by 20th January 2018.
14. The teams should submit the project report by 13th May 2018.
15. A team can send only one project proposal
16. The completed projects will be reviewed. A Seminar-cum-Exhibition will be arranged at Bangalore. The FAER scholars will be selected in the seminar. Seminar invitations will be sent to all project teams.
17. The FAER Scholar Awards - The first prize will be Rs. 1,00,000/- (Rs. 80,000/- to Students Team and Rs. 20,000/- to Project Guide), The second prize will be Rs. 75,000/- (Rs. 60,000/- to Students Team and Rs. 15,000/- to Project Guide), Third prize Rs. 50,000/- (Rs.40,000/- to Students Team and Rs. 10,000/- to Project Guide). The scholars will be selected by experts. The awards and grants to all selected teams will be presented at the Seminar-cum-Exhibition.
18. Kindly note that the topic chosen should be a focussed one - not very general or diffused; should be preferably an experimental one - not just programming work / simulation; and should be feasible and implementable in 3 - 4 months in the institutions.
19. Kindly visit our website for details and other relevant information and further announcements.

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FAER - McAfee SCHOLAR PROGRAMME : 2017-2018

Proposal Format

1. Name of the Students :
Degree registered :
Branch :
Year :
Address (residential) :
E-mail address :
Phone / Cell no :
Address of the College :
(including pin code)
Web site of the college :
Phone No :
Name of the Supervisor /
Project Guide with E-mail address
and mobile Number :
2. Whether the students belong to SC / ST : Yes / No
(If Yes, a
certificate from
principal to this
effect for SC/ST
students should be
submitted)

3. Title of the Project	:
Area	:
Relevance to the area of the contest (Explain)	:
Type of Project (tick one)	: Concepts / Experimental / Technology devpt., / Application / Computer based / Product
Objective of your project	:
Brief description	:
Unique features of the project	:
Deliverables from the project	:
Existing Approaches	:
What is new in the project	:
How is this proposal different from existing approaches based on	:
• Originally	:
• Performance	:
• Costs/ benefits	:
References (literature)	:
Approach to solving the problem (implementation details)	:
▪ Modelling	:
▪ Construction / experiments / programming	:
▪ Testing	:
▪ Results	:

▪ System integration issues :
Support infrastructure :
required

Likely problems that may :
be encountered

Reasons why this proposal should :
be considered for selection

Budget estimates :

(should not include equipments, instruments,
travel, software packages, books, etc.,
that are normally available in the college)

4. Declaration

We will take up this project if selected, for FAER Scholar
Project only and will not submit this to any other contest.

Signature of Students

Signature of Project Advisor / Project Guide

Date:

Signature of Principal

DECLARATION / UNDERTAKING

This is to certify that Mr. / Ms.
..... is a bonafide student of
year in the degree program of our college. If the proposal is
selected by FAER, we will provide the requisite
laboratory/computer support in our college.

Date:

Signature of Principal

Seal of the institution

Deep Learning and GPUs

Speaker: Thejaswi N S, Compute Developer Technology Engineer, NVIDIA.

Speaker Background: Thejaswi is a member of the Devtech Team in NVIDIA which is focused on HW/SW co-design of computationally intensive algorithms on GPUs. His interests are in field of Machine Learning and Graph Analytics.

Duration: 40 mins (+ 5 mins for QnA)

Abstract

Today, we stand at the beginning of the next era, the AI computing era, ignited by a new computing model, GPU deep learning. This new model - where deep neural networks are trained to recognize patterns from massive amounts of data - has proven to be “unreasonably” effective at solving some of the most complex problems in computer science. In this era, software writes itself and machines learn. Soon, hundreds of billions of devices will be infused with intelligence. AI will revolutionize every industry.

Traditional machine learning uses handwritten feature extraction and modality-specific machine learning algorithms to label images or recognize voices. However, this method has several drawbacks in both timeto-solution and accuracy. Today’s advanced deep neural networks use algorithms, big data, and the computational power of the GPU to change this dynamic. Deep learning was only a theory until teams around the world started using NVIDIA GPUs. Machines are now able to learn at a speed, accuracy, and scale that are driving true artificial intelligence and AI Computing.

This talk will:

1. Give an introduction to Deep Learning
2. Explore how it is impacting the world today
3. How is NVIDIA contributing to this revolution
4. End with recipe for a successful Deep Learning project.

