




Educational Workshop Series

**Five-Day Introductory Workshop on
HAVING FUN WITH SCRATCH PROGRAMMING
(For 8-10 year olds)**

Learn	<ul style="list-style-type: none"> • Introduction to the fundamentals of Scratch and Demo of Sensor Board • Creating interactive software projects on Scratch • Creating games and projects with scratch software
Organized by	<ul style="list-style-type: none"> • Exciting Science Group • Venture Center – a Technology Business Incubator
Co-sponsored by	
Anchor Faculty	Shraddha Gargatti : Senior Associate –Exciting Science Group
VC Organization Team	Shraddha Gargatti : Senior Associate –Exciting Science Group Gayatri Kshirsagar : Associate – Exciting Science Group Shiv Tripathi : ICT – Venture Center
For whom	<ul style="list-style-type: none"> • Children: 8 to 10 year olds • Maximum 31 seats <ul style="list-style-type: none"> - 25 seats (for those who bring their own laptops) - 06 seats (reserved for children from municipal school) <p>Booking schedule : First-come-first-serve</p>
When	Monday, 16 May 2016 -Friday, 20 May 2016; 10 am-12:30pm
Where	E Class Room, Venture Center, NCL Innovation Park Dr. Homi Bhabha (Pashan) Road, Pune-411008
Contact	<p>For registrations and queries: Ms. Gayatri Kshirsagar Venture Center, 100, NCL Innovation Park, Dr. Homi Bhabha Road, Pune – 411008; Phone: +91-20-64011025 Email: gayatri@excitingscience.org</p>
Cost	<ul style="list-style-type: none"> • Free. Prior registration and booking of seat required. • Seat is booked against refundable deposit * of Rs 500. (*See detailed terms on receipt coupon) • Children MUST bring their own laptops (with webcam) with enabled USB ports (for software installation) for the workshop • A photocopy of the participant’s school ID card must be submitted during registration.

Introduction

Scratch (scratch.mit.edu) is a graphical programming language developed by the MIT Media Lab (www.media.mit.edu) to create animation, games, and much more. It is designed as a first introduction to structured logic and programming, and allows children to develop their creativity. The Scratch software can also be interfaced to a sensor board so that the software responds to signals from the sensor board. While the software is available freely from the Scratch website, the sensor board was not available India till recently.



This workshop aims to expose 8-10 year olds to the joys of programming. This workshop is meant to provide a general introduction to the fundamentals of scratch. The workshop will comprise classroom lectures, which will be interactive and will convey the excitement of programming using scratch, as well as demo programs, which will enable participants to understand and get familiar with the scratch interface. Special session shall be run to demonstrate the use of Sensor Board to develop interactive projects. At the end of the workshop, children should be able to develop their own animation, games and graphic stories.

Course Outline

- Introduction to Scratch Programming
- Demo programs to explore the usage of programming blocks
- Introduction to variable and data storage basics
- Use of control statements/loops
- Making Graphics and Sound effects. Creating interactive software projects on Scratch
- Introduction to Sensor Board; Game demonstrations using Sensor Board

Schedule

Time	Session title	Lead	Venue at Venture Center
16 May 2016	INTRODUCTION TO SCRATCH		
0915-1000	Registration	GK	Foyer
1000-1010	Introduction to the workshop	SG	E Classroom
1010-1115	Lecture cum Activity: Introduction to Computer Basics. Introduction to Scratch Programming Interface Examples of what you can do with Scratch interface	SG	E Classroom
1115-1130	Break		Foyer Area
1130-1230	Lecture cum Activity: Getting Started with Scratch. Introduction to Motion Blocks and Looks. Making a Character move in Scratch Project 1: Random picture and movement; Pick your own sprite	SG	E Classroom
17 May 2016	MOTION; CONTROL STATEMENTS/LOOPS		
1000-1115	Lecture cum Activity: How to Repeat Code using Loops? Variables and Data Storage Basics ("Buckets" and "water"). Running Codes based on conditions: if else-if	SG	E Classroom
1115-1130	Break		Foyer Area
1130-1230	Project 2: Pong Game with Score Board	SG	E Classroom
18 May 2016	GRAPHICS AND SOUND EFFECTS		
1000-1115	Lecture cum Activity: Making Graphics: How to Draw in Scratch? How to record sound and playback in Scratch?	SG	E Classroom
1115-1130	Break		Foyer Area
1130-1230	Project 3: Give your sprite some sound and action.	SG	E Classroom
19 May 2016	INTRODUCTION TO SENSOR BOARD		
1000-1115	Introduction to Sensor Board. Demonstration on Interfacing the Sensor Board in Scratch.	SG	E Classroom
1115-1130	Break		Foyer Area
1130-1230	Project 4: Make your own Game Ideation session on your own (group) projects	SG	E Classroom
20 May 2016	GAME DEMONSTRATIONS		
1000-1115	Lecture cum Activity: Finishing Touches. Demonstrations (Games)	SG	E Classroom
1115-1130	Tea Break		Foyer Area
1130-1230	Project 5: Build your own (group) project with help from faculty and volunteers	SG	E Classroom
1230-1300	Workshop feedback, certificate distribution	ESG team	E Classroom

ANCHOR FACULTY:



SHRADDHA GARGATTI

Shraddha is a Senior Associate of the Exciting Science Group (ESG) which aims to share the excitement of science and technology with school students. She has a BE in Electronics and Communication, and has previously worked as a Science Communicator in the DST-Max Planck Institute-Indian Railways supported Science Express. She is passionate about science popularization and seeks to expand the scope of ESG activities in the future.

Course includes

- Lectures
- Demo games
- The instructors will help you with installations in your laptop
- Demonstration of Sensor Board during the workshop.
- Certificate of Participation issued by Exciting Science Group
- Workshop includes soft drink during the break at Foyer Area

Note:

Parents are NOT required to purchase the Sensor Board.



About the Organizers



About Exciting Science Group

The Exciting Science Group comprises of scientists from two of Pune's best research institutions, NCL and IISER-Pune. This initiative is aimed at conveying the excitement of science and technology to school students. The motivation behind our programme is to attract the brightest talent from the next generation towards careers in science and technology, since it will be these students who will drive tomorrow's science and innovation based economy.

For more information, visit: www.excitingscience.org



About Venture Center

Entrepreneurship Development Center (Venture Center) – a CSIR initiative – is a Section 25 company hosted by the National Chemical Laboratory, Pune. Venture Center strives to nucleate and nurture technology and knowledge-based enterprises by leveraging the scientific and engineering competencies of the institutions in the Pune region in India. The Venture Center is a technology business incubator supported by the Department of Science & Technology's National Science & Technology Entrepreneurship Development Board (DST-NSTEDB). Venture Center's focuses on technology enterprises offering products and services exploiting scientific expertise in the areas of materials, chemicals and biological sciences & engineering.

For more information, visit <http://www.venturecenter.co.in/>

About the Sponsors






About Forbes Marshall Foundation

As an organization, Forbes Marshall has a long history of serving the communities it operates in; playing the role of a catalyst, enabling successful social change. Building on those experiences, the Forbes Marshall Foundation was set up, with the objective of supporting projects and communities, located outside of Pune, India. The Foundation's core principle is to "give" in a manner, which promotes sustainability of a project. The three core grant making priority areas are education, health - with a particular focus on neglected areas of health; and research, which would foster more enlightened and informed giving.

Their core belief is that every human being deserves to be respected and valued, irrespective of his or her life circumstances and background. This belief informs the work we do and the partnerships we seek with other organizations. For more information, visit:

http://www.forbesmarshall.com/fm_micro/FMFoundation/

	<p>About Praj Foundation</p> <p>Praj Foundation was established in 2004 to give expression to the sensitivities of Praj employees and family members towards societal responsibilities. While this was already happening in the Company, Praj Foundation helped put all its social impact activities under one roof with a clearly stated objective. The idea was to create areas of focus within the ambit of its social activities that would best reflect the strengths of the company.</p> <p>For more information, visit: http://www.praj.net/praj-foundation.html</p>
	<p>Persistent Foundation and its members are committed to help our neighborhood community areas. It's a collaborative effort and needs support from community and citizens who are aware of social issues and are striving to solve those. The Foundation encourages everyone to be a part of this movement and contribute to the change.</p> <p>For more information, visit: http://www.persistentfoundation.org/</p>
	<p>The Nag Foundation is a public charitable trust that was established by K. K. Nag Pvt. Ltd in 1989 with the initial purpose of promoting Art and Culture in Pune and providing a platform for Pune artists to display their work and reach discerning buyers. The Nag Foundation played a very major role in popularizing art in Pune and many of the best known artists of the city attribute their initial success to the opportunities that were afforded to them by the Foundation. Now that Pune has a vibrant art scene, with several Art galleries and exhibitions, the Company felt that the Nag Foundation had fulfilled its initial mandate of promoting Art and Culture in Pune and decided to redirect its activities to other areas. The Foundation is now used primarily as the vehicle through which the Company conducts its Corporate Social Responsibility initiatives.</p> <p>For more information, visit: http://kknag.com/nag-foundation/</p>