



Lógica y Creatividad



Fundamental Educational Project, Oriented to Industry 4.0

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Fundamental Educational Project, Oriented to Industry 4.0



Lógica y Creatividad

According to the latest Bureau of Labor Statistics, over 3 million STEM jobs are going unfilled due to the lack of qualified candidates, and according to McKinsey & Co., 56 percent of enterprises are choosing to put in place reskilling programs to address the shortage of available STEM personnel. (www.nclab.com)

NCLab's courses are designed for complete beginners. Your patrons will enjoy NCLab's teaching method which is based on learning by doing. This is much more fun (and productive) than taking standard video-based courses. (www.nclab.com)

The Goal of this Project is to give students the knowledge and skills to face the requirements of Industry 4.0.



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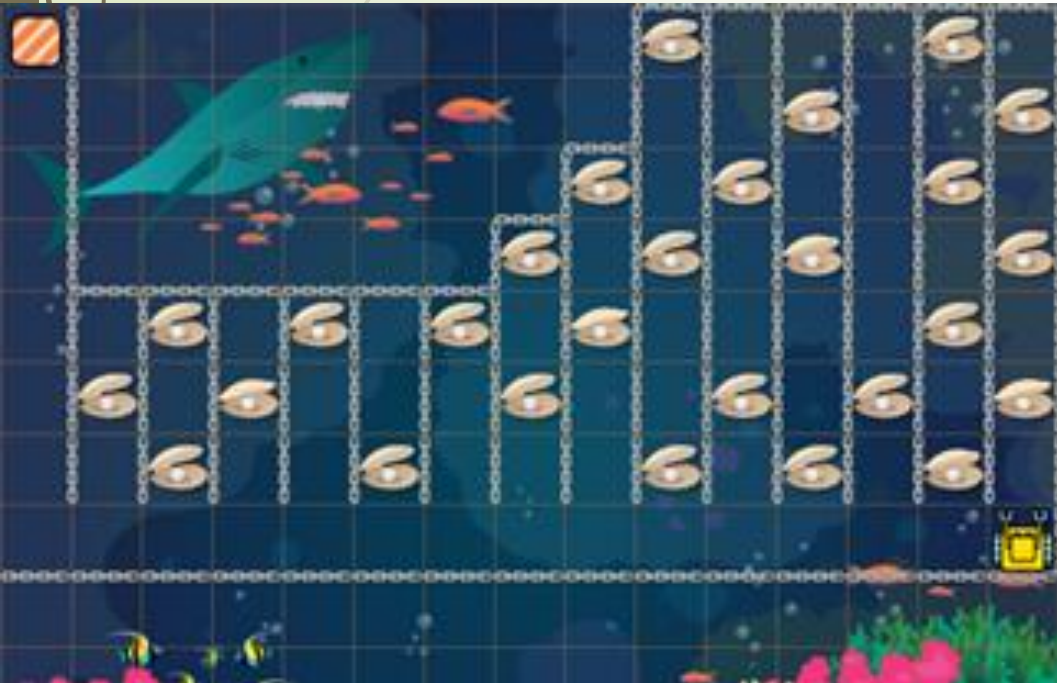
Fundamental Educational Project, Oriented to Industry 4.0

This Project Includes Selected Courses by Experts:

Karel Coding Course
Visual Intro to Python Course,
Python Fundamentals Course
Intro to 3D Geometry Course
3D Modeling Course

You will learn:

- Computational Thinking
- Logic and Problem Solving
- Syntax and Code Formatting
- Counting Loop, Nested Loops
- Conditional Statements
- Conditional Loop
- Custom Commands
- Local and Global Variables
- Recursion

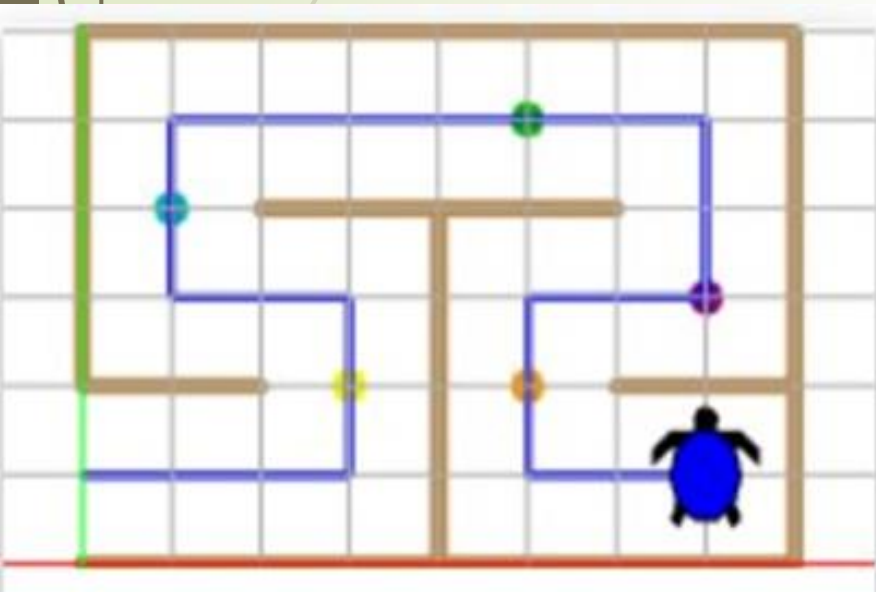


Visual Intro to Python Course

Powerful Visual Course with Elements of Geometry and Robotics

You will learn:

- Algorithmic Thinking
- Robotics Algorithms
- Python Code Syntax
- For-Loop, Nested Loops
- Local and Global Variables
- Functions, Default Parameters
- Conditions, While-Loop
- Boolean Expressions and Variables
- Operations with Python Lists



You will learn:

Using Python as a Scientific Calculator
Drawing, Plotting, and Data Visualization with Matplotlib

Working with Text Strings
Variables and Types

Boolean Values, Functions, Expressions, and Variables

Lists, Tuples, Dictionaries, and Sets
Functions

The For Loop, Conditions and The While Loop,
Exceptions and File Operations

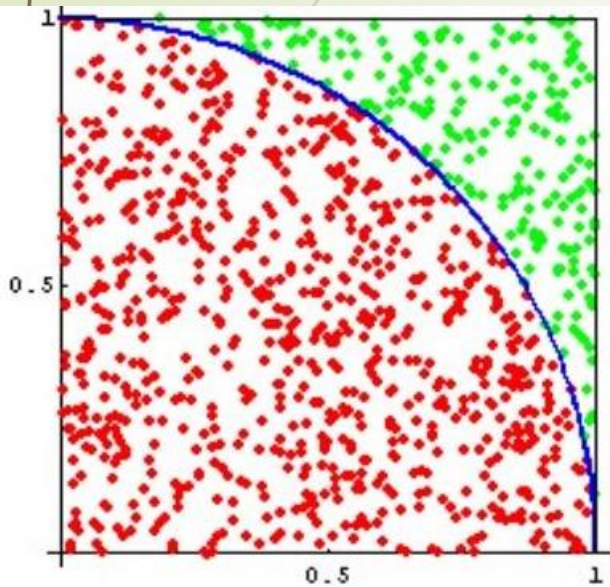


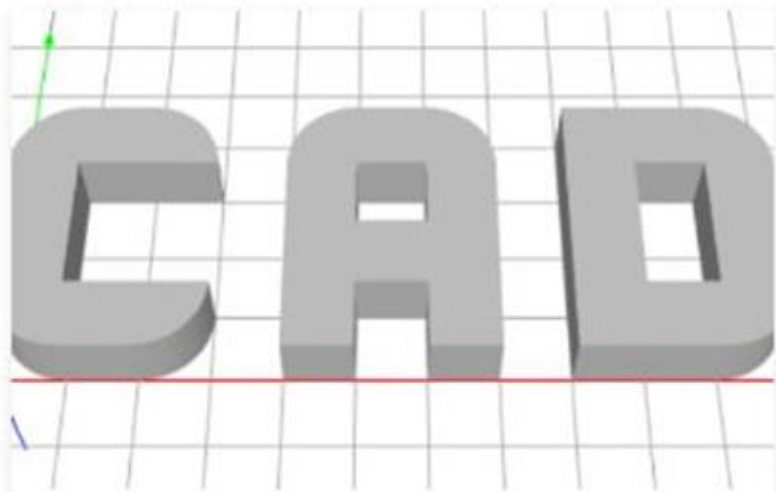
Fig. 52: Monte Carlo calculation of π .

Intro to 3D Geometry Course

Good understanding of 3D geometry is required in robotics

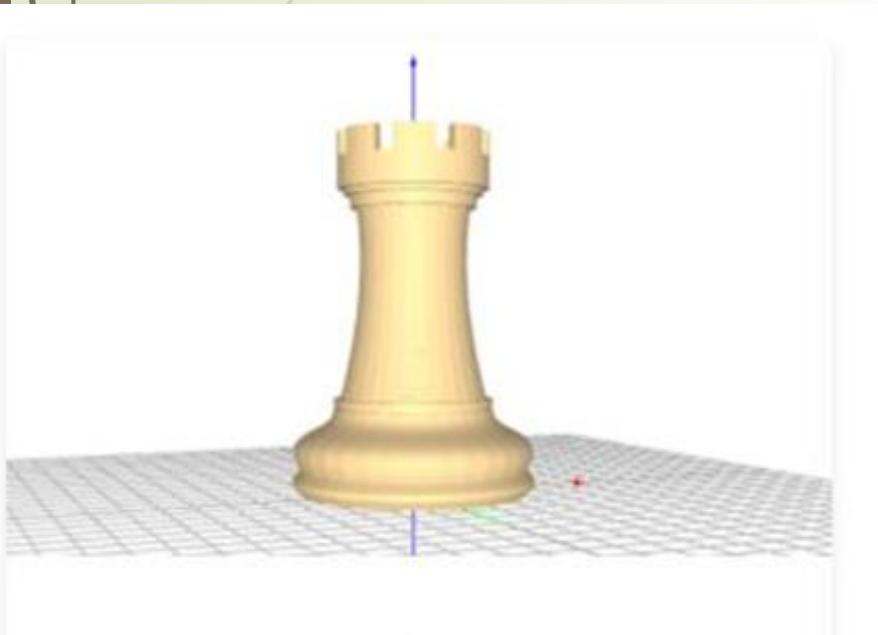
You will learn:

- Points
- Coordinates
- Distance
- Vector
- Vector Operations
- Working with 2D Shapes
- Angles and Rotations
- Working with 3D Objects
- Local and Global Variables



You will learn:

- Properties of 2D and 3D Shapes
- Vectors and Angles 2D and 3D
- Rotate, Move and Scale Objects
- Create Intersections and Unions of Objects
- Substrate and Intersect of Objects
- Efficiently Design of Complex Models.



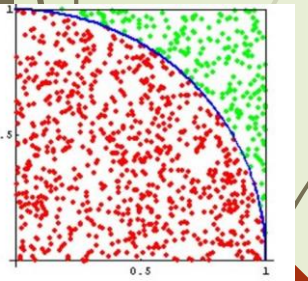
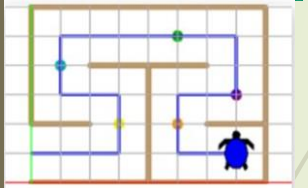
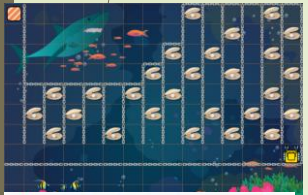
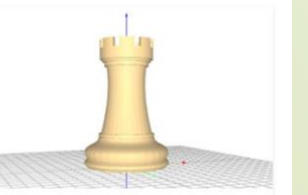
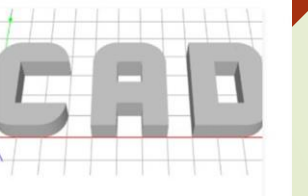


Fig. 52: Monte Carlo calculation of π .



SIX SEMESTER PROGRAM							
SEMESTER S	S1	S2	S3	S4	S5	S6	
COURSES							
Karel Coding							
Visual Intro to Python							
Python Fundamentals							
Intro to 3D Geometry							
3D Modeling Course							

NCLab and LOKREA

NCLab, Network Computing Laboratory

NCLab provides eLearning career training programs that deliver the knowledge, practical experience, competency, and confidence needed to capture high-demand STEM jobs.

NCLab also provides introductory STEM courses that are widely used in K-12 schools and public libraries.

Lokrea is a brand developed to promote NCLab platform in Mexico. On the one hand, NCLab represented by Dr. Pavel Solin, scientist in the area of science and computing, native of the Czech Republic and on the other hand, LOKREA by Dr. Javier Morales Castillo, Mexican researcher and scientist too.

PLANS FOR MÉXICO

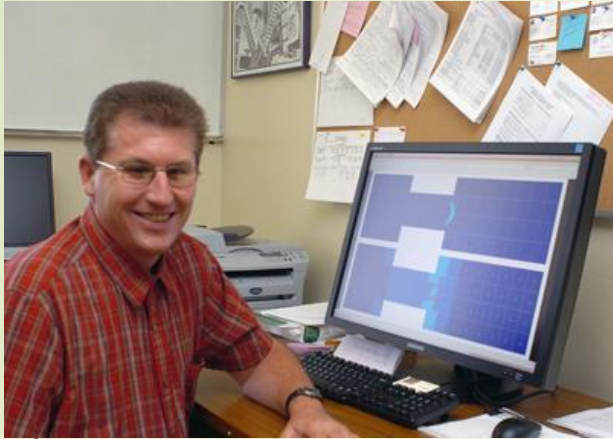
Dr. Pavel Solin and Dr. Javier Morales at ESCO 2012 (European Seminar on Computing), they discuss the possibility of introducing programming courses in México through the NCLab platform and the benefits that Mexican students would have.

NCLab platform courses as Karel Coding, Visual Python, Python programming and SQL have been taken for different schools at Mexico from 2016 year. We could mention some institutions and schools like: Tecnológico Nacional de México (TecNM) ITNL, UANL FIME, IAM, and other.

www.lokrea.com.mx



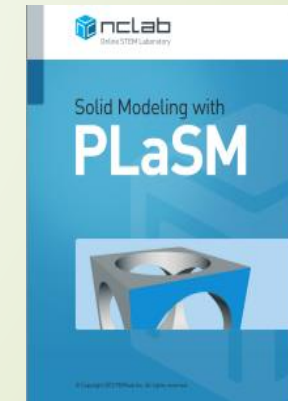
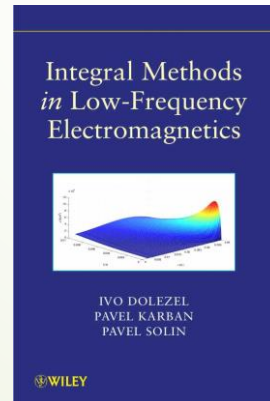
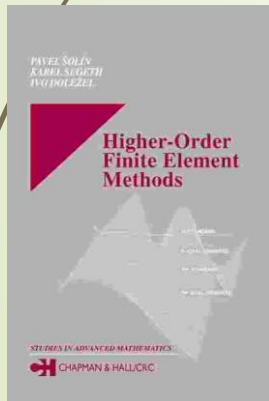
NCLab was created by



Dr.. Pavel Solin

- Internationally recognized scientist in the areas of mathematics, physics and programming.
- Professor of Applied & Computational Math, UNR
- Autor de innumerables artículos y libros.

My passion:
Make modern computing technologies available to educators and students.



BOOKS , Dr.. Pavel Solin

NCLab Qualities

Pedagogic,

Includes videos, examples and exercises

Gradual and adaptable

Each student could advance at different rhythm.

Flipped Learning.

Teaching in a modern way, .



Monitoring students progress.

Students progress can be monitored by authorized personnel only., .



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5265	77%	
3030	41%	
2945	38%	
2625	25%	
2415	34%	

Monitoring students progress

CONTACTO EN MÉXICO

Para mayor información, no dude en comunicarse con:

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Video Promocional

<https://youtu.be/OOr7jbYHbd0>

