Coursera Courses completed by Mech Faculty

I have completed 2 courses of total 4 courses **under** Autodesk CAD/CAM for Manufacturing Specialization in Coursera platform and almost completed the 3rd course.

--Dr.A.K.Lakshminarayanan

Course 1	Introduction to CAD /CAM and practical CNC machining	completed
Course 2	Creating toolpaths for CNC lathe	completed
Course 3	3-axis machining with Autodesk Fusion 360	Final Stage of completion
Course 4	Multi-Axis CNC Toolpaths	Enrolled

These courses are very useful to learn integrated CAD/CAM in Autodesk Fusion 360. Makes us easy to understand the manufacturing workspace by using different tool library, creating and simulating the tool path for different manufacturing operations, creating and interpreting engineering drawing from the 3D models and generating CNC codes.

The way in which, each of these courses designed is very interesting. Every week, we need to go through around 10 to 14 short videos and practice the procedure in Autodesk Fusion 360 software package and 5 MCQ based quiz. In total for four weeks, we need to answer for 20 MCQ questions. In addition, there are 20 MCQ course assessment questions, which includes the topics covered in all the four weeks

In each week, inaddition to the examples used for teaching by mentors, the learners need to practice three examples for which solutions are provided in "pdf" as well as videos. Also in each week, a challenge exercise need to be solved for which solution is not provided.

At the end of the fourth week, a challenge exercise need to be modelled and simulated in Fusion 360 and this assignment will be peer reviewed by three other learners doing the same course. Simultaneously, the leaner also need to review 3 others course assignment (3d model and CNC tool path) to complete the course. Overall this was a great experiential learning through COURSERA platform by Autodesk and planning to complete the remaining courses under the **Autodesk CAD/CAM for Manufacturing Specialization**

Dr. M S Alphin, Completed a Course on COVID19 and received Certificate of achievement from Gulf Medical University
The course contains Six Modules
Module 1: Introduction and Transmission
Module 2 : Symptoms
Module 3 : prevention and Control
Module 4 : Personal Protection Measures
Module 4 : Dos and Don'ts
Module 4 : Myths and Facts

Dr.B.Anand Ronald completed a course on "**The 3D Printing Revolution**"

Instructor:
Aric Rindfleish,
University of Illinois at Urbana Champaign

3D Printing is one of the hot topics especially in the current scenario with COVID 19, wherein this technology has helped people manufacture custom made parts with lesser lead times. The experience of doing an online course from a foreign university was exciting. Although 95% of the course delivery was through attending pre-recorded video lectures, case studies etc., the experience of doing assignments by taking self videos and uploading them on YouTube and sharing the link for peer review was interesting.

Dr. G. Selvakumar, completed an online non-credit course titled 'Influencing People' offered by University of Michigan through Coursera.(10-5-20)

Dr.R.Prakash, Associate Professor, successfully completed Coursera course on "AI for Everyone".(17-5-20)

Dr. S. Rajkumar has completed two courses

Course 1: 6 week course on "Professional development: Improve yourself, always" offered by Macquarie University, Australia.

Course brief: The course is intended to assist ongoing development of skills and abilities by focusing on the nature of the self-development process. The course explained the major phase of self change through self-directed learning, self awareness, self-reflection, self-change problems, the process of change and action plan for personal change. It helps reflect on and develop self-awareness of our current leadership style to understand the strengths we need to develop and which challenges we will face as a leader. The course also examined the change process, and explored the processes of self-regulation that underpin personal skill development.


Learning experience: First of all, it was really nice learning experience through online. The course content was quite interesting and the quizzes were creative oriented with lot of case study on management skills.

It was an amazing experience to learn the various phases of self learning and continuous development through the real life examples explained in this course.

The course was useful in learning how to improve our self at work place or in lifelong learning process. It was very helpful to make decision, understand ourselves and others and to develop career growth.

Course 2: 4 week course on "AI For Everyone" offered by Stanford University, USA.

Course brief: The course is designed to brief what really "Artificial Intelligence" is. The basic AI terminology like neural networks, machine learning, deep learning, and data science are explained well. The course is designed for those who work without technical background too. The course comprises several modules namely what AI realistically can and cannot do, how to spot opportunities to apply AI to problems in an organization, how to start working with AI and how to navigate ethical and societal discussions surrounding AI etc.
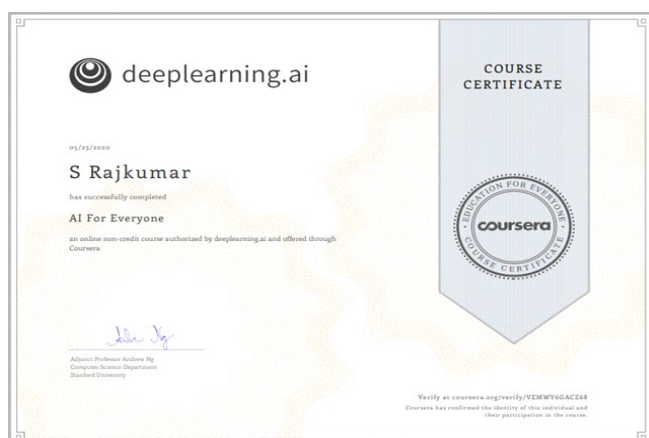
Learning experience: The course content was very much useful in understanding the term Artificial Intelligence. It provided a good platform for learning the basics of Artificial Intelligence and the pros and cons of AI.

It was an interesting experience to follow this course especially those who are not from Computer Science background and to explore the importance of machine learning and data science. The course was useful in learning how to use AI in terms of technical and business point of views. The feature of AI is relay amazing as explained in this course.

Dr.R.Damodaram completed a course on "**The 3D Printing Revolution"**

Instructor:
Aric Rindfleish,
University of Illinois at Urbana Champaign

<u>Dr.M.Nalla Mohamed writes about the course completed in coursera:</u>

I have completed the course offered by the coursera entitled "Creative Thinking: Techniques and Tools for Success!" offered by Imperial College, London

About this Course:

In today's ever-growing and changing world, being able to think creatively and innovatively are essential skills.

Making sense of or communicating new ideas in an innovative and engaging way, approaching problems from fresh angles, and producing novel solutions are all traits which are highly sought after by employers.

This course equipped me with a 'tool-box', introducing a selection of behaviours and techniques that will augment our innate creativity. The practical approach of this course enabled me to acquire an essential skill-set

for generating ideas, with plenty of:
Fun e-tivities and exercises;
Practical lectures and tips;
Video representations of the techniques in action.

Instructor
Instructor rating 4.68/5 (33 Ratings) ⓘ

Peter Childs
Head of the School of Design Engineering
Dyson School of Design Engineering
👥 35,886 Learners
📖 1 Course

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nalla mohamed, congratulations!

Completing an online course is no simple endeavor. It requires time, dedication, and commitment, so when we say "Congratulations" - we mean it! Take a moment to reflect on your hard work and enjoy your completion of Creative Thinking: Techniques and Tools for Success. You've earned it.

Syllabus:
Week 1 Introduction to the principles of creativity
Week 2 Creativity tools
Week 3 Six thinking hats
Week 4 Morphological analysis
Week 5 TRIZ- the theory of inventive problem solving
Week 6 SCAMPER
Week 7 Using the tool in combination

An Online Certification Course through Coursera on "Introduction to Internet of Things and Embedded Systems" - Experience Sharing by Dr. N. Lakshmi Narasimhan, Assoc. Prof/Mech, SSNCE.

Beginning with a warm note of Thanks to SSNCE, I wish to share my experience on the online course completed successfully during the COVID19 lockdown. The course was on "Introduction to Internet of Things and Embedded Systems", offered by Prof. Ian G. Harris, Prof/Dept. of Comp. Sci., Univ. of California, Irvine, USA through the Coursera online platform for a duration of about 4-Weeks.

The course was aimed at imparting fundamental knowledge on the terms and terminologies of IoT targeting those audience who are quite new to this field with no background on the subject. The syllabi was divided as 4 modules split as one module per week.

The modules covered the basic introduction to IoT, Embedded Systems, Hardware and Software required, Networking and the Internet across the 4-Weeks. Apart from Video Lectures, Video Demo sessions and Reading Materials, every registered candidate have to pass a Quiz and Assignment with 80% Grade for all the 4 individual Modules held on a weekly basis. Also, peer review of Assignments of at least three peers who have registered for the course was Mandatory to complete a given module.

No one was allowed to migrate to a new module from a current module without successful completion of the Quiz, Assignment and Peer Review of Assignments assigned for the module.

The lectures by Prof. Ian G Harris were very lively and enlightening on the subject. It was a very carefully prepared course and well executed one.

The Assignment Tasks and Quizzes were mind awakening and really made the readers to have a full listening/reading of the course materials before attempting the same.

Overall, that was a very fantastic journey through Coursera for Knowledge gaining in a brand new topic of the day and future!! I would personally strongly recommend the course to anyone ambitious about knowing IoT.

I place my sincere thanks to the Management of SSNCE for giving us all an Opportunity to learn and gain an Online Certification from Coursera.

No doubt, the Course has imparted some basic Skills on the topic motivating me to explore further.

A hearty Thanks to Prof Ian G. Harris, Univ. of California, Irvine and Coursera for offering the course online benefiting millions of aspirants across the Globe!

C.Arun Prakash writes about the course he completed from University of Sydney..

Positive Psychology and Mental Health

My learnings:
This course was very helpful in understanding what mental health is and how to maintain a positive mental health. One major aspect of the course which would be useful for everyone in this modern lifestyle is how to manage stress.

Some techniques were also given in this course to manage stress and it was personally useful for me. It discussed how meditation, Mindfulness, good sleep pattern physical exercise and proper diet would help in leading a better life.

With the knowledge obtained from the course it would be easier to understand the students Psychology, mentor them and help them overcome their problems.

Key Concepts of the Course

- Define mental health and discuss the different components of mental health, i.e. social, emotional and psychological wellbeing, resilience.
- Define the role of stress in everyday life and understand how to manage stress as it occurs naturally.
- Describe the ways in which lifestyle and physical health influence our mental wellbeing and vice versa.
- Explain the role of relaxation and mindfulness in managing anxiety and stress.
- Define attachment and explain the importance of this concept in early childhood and throughout adult life.
- Describe how individuals develop a sense of their own identity through relationships with others.
- List the positive benefits of work, intimate relationships, family, friends and social communities for mental health.
- Assess one's own lifestyle to establish where improvements could be made and begin to strengthen one's important relationships and work-life balance.
- Outline a basic overview of the major types of mental disorders, including anxiety disorders, mood disorders, trauma related conditions and psychosis.
- Discuss the major treatment options for patients suffering from mental disorders, including psychological treatments, lifestyle and medication.
- Explain the concept of resilience, its frequency in the population and how this can be strengthened
- Explain the importance of getting help early for mental disorders or symptoms.
- Discuss the relationships between aspects of creativity and spirituality and positive mental health.
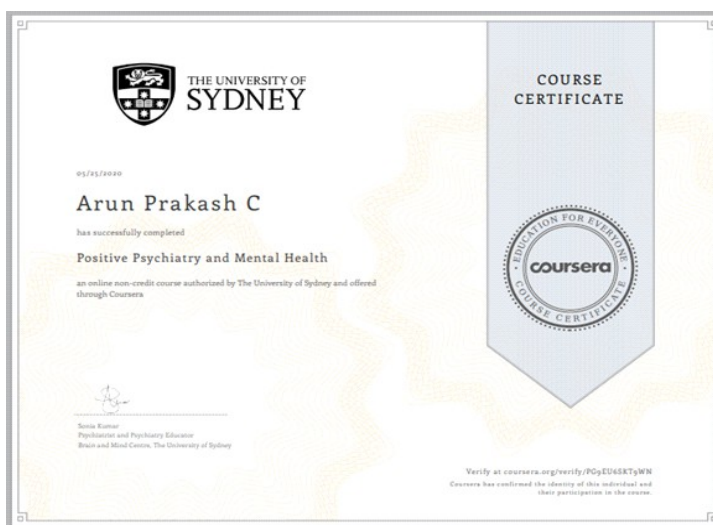
Dr.S.Somasundaram writes about the course he completed - Everyday Excel-Part 1

A five week online non-credit course titled "Everyday Excel, Part 1", authorized by University of Colorado Boulder and offered through Coursera, has been completed.

The course covered the basics of Excel, and then moved on to various formulas like COUNTIF, SUMIF.
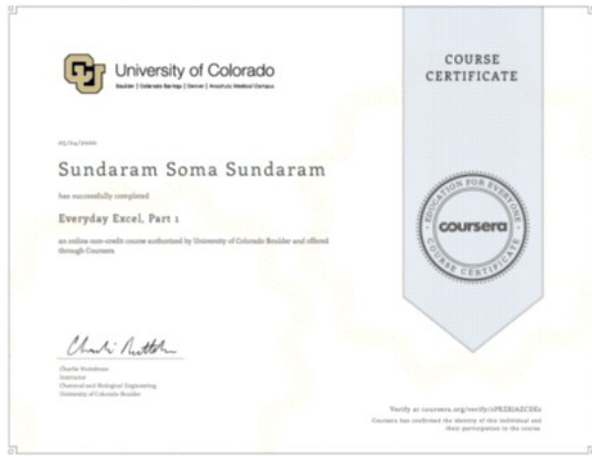
It also explains how to compile lots of data in an easier manner, like preparing a grade sheet for the full semester. The course also gave introduction to various TEXT functions that are available in Excel, how to merge names and split them. Finally it introduced the function of LOOKUP, where from a large data, retrieval of specific information can be carried out.

Advanced topics in Excel are being offered in the Part 2 of the course, to which I have enlisted.

Dr. Satheesh Kumar Gopal has copleted a course on Introduction to Applied Machine Learning
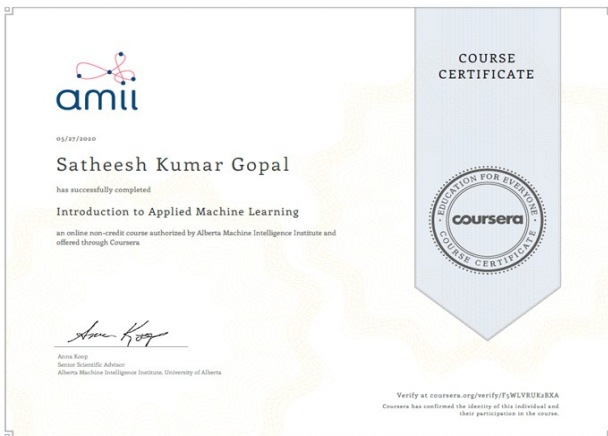
Offered by Alberta Machine Intelligence Institute, the course started with a note on the differences between Data science and Machine learning and how it is related to the domain of Artificial Intelligence. Slowly but steadily the topics moved to cover all the fundamentals aspects, the types and the nitty-gritties of each type. Apart from the plentiful examples, each module was appropriately supported by the quizzes and reading documents that provides the depth of the topic, if one wishes to tread.

The business aspect of Machine learning is presumed to be the highlight of the course, because any other course on Machine learning would cover all the technicalities but never the business aspects. It shows the strong team that has exists behind this course. The instructor, Ms. Anna Koop is eloquent in moving from one topic to another and richness in the content exposes the ample experience of the instructor in this research domain. This is one of the four courses in total. I'm moving on with the next one.

Dr. S. Suresh Kumar has completed the online course titled **"Design Thinking for the Greater Good: Innovation in the Social Sector"** with a grade of **94.6%.** It was a four week course and the instructor for the course was Jeanne M. Liedtka, United Technologies Corporation Professor of Business Administration, **University of Virginia**.

The contents for the online course are,
Week1 : DT fundamentals
Week2 : Before You Begin, And Asking "What Is?" Quiz
Week3 : A Mindset For Innovation, And Asking "What If?" Quiz
Week4 : Asking "What Wows" and "What Works" and **Design Thinking Opportunity: Assignment**

Dr.A.S.Ramana completed a course on **Renewable Energy & Green Building Entrepreneurship** offered by **Dr. Chris Wedding** Associate **Professor, Duke University.**
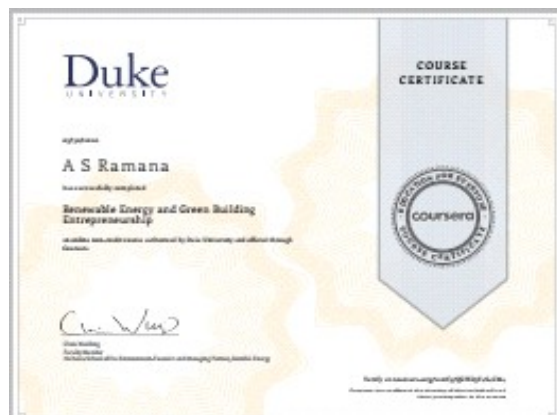
The Course is useful for all sections of people focusing on energy efficiency, environment, sustainability, and desirous of making a positive impact on society.

The three weeks course

- provides business opportunities, challenges, and potential solutions in the renewable energy and green building sectors.
- discusses some of the struggles of entrepreneurs in their path of innovation.
- briefs on steps for generating, refining, and launching new business ideas

Dr.R.Vimal Samsingh completed the following courses on Coursera.
"Introduction and programming with IOT Boards "
This course provides insights on how internet of things has been adopted in wide area of engineering applications and has emerged as an important tool in 4th Industrial revolution along with AI and Big Data. This Course gives information on general concepts of IOT and its applications.
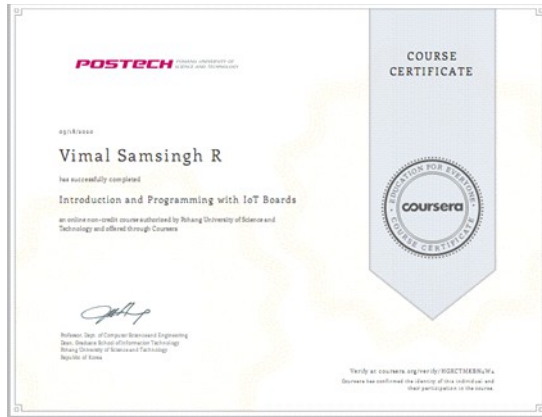
The Course also enables us to use the framework of IOT kits like Arduino, Raspberry Pi and Samsung ARTIK. The art of programming the above tools with case study is been thought very thoroughly

The course helped in better understanding of IOT framework and how it can be implemented to various applications. The course further provided the knowledge on the architecture of the boards used for IOT. The course helped me understand the basics of setting up the development environment for Arduino, Raspberry Pi and Samsung ARTIK and taught us on how to program these boards for desired applications

"Create your first python program"
This course is targeted for users who don't have much knowledge on Python programming. This Course provides information about the basics of python programming and the various syntax used in python .The course provides hand on experience on concepts like using the Terminal, and a Text Editor as a Python programmer, variables, functions, lists, conditional statements, for and while loops, and getting user inputs .

The course had a unique dual screen platform called Rhyme in which we can program and compile the codes along with the teacher which was a unique experience .This new approach, gives us a hand on experience in programing with python. The course ended with a quiz where some lines of codes were given and we are supposed to figure out the output

In this Course the basics of Python programming language
"Build Data Analysis tool using R and DPLYR "
This course is targeted at one of most powerful data analysis tool - The DPLYR package. This Course is focused on learning the syntax of six dplyr verbs filter, select, group by, summarize, mutate, and arrange. By completing the course, we will be able to Use the six main dplyr verbs, understand the dplyr package and its capabilities and Get hands-on practice using R and dplyr functions

The course provided a unique experience in handling data in excel sheets. After the course we will be able to perform the six functions to perform data analysis