## Interview

### Hitesh Agarwal

12, July 2019

#### 1. Choice of Interviewee

I have chosen Kunal Singla as my interviewee. He is a friend of mine who is pursuing MSc(Mathematics Hons) from IIT Delhi. I chose him because of his knowledge and interest in mathematics and his qualifications speak for itself. Moreover, he is a tech savvy person who is always interested in new applications.

### 2. Interview Questions and Answers

## Question 1) Could you state your name and your qualifications please ?

Answer 1) My name is Kunal Singla. I have done BSc(Mathematics Hons) from Punjab University, Chandigarh, India and I am currently pursuing my MSc(Mathematics Hons) from IIT,Delhi.

# Question 2) Are you aware about the reason and goal of this interview $^{7}$

Answer 2) Yes. I believe you are designing a calculator that computes the value of Euler numbers and the purpose of this interview is to gather information about the functionalities and general design for such a calculator from a users perspective .

# Question 3) What device do you generally use for complex calculations in your field?

Answer 3) I use various devices for these calculations depending on my work. If I am working on my computer, then I normally use the calculator application provide by Windows or sometimes I prefer using the scientific calculator that I have on my phone. If there are extremely complex calculation, then I ask Google to help me out!

# Question 4) Should the layout of the calculator be the same as the generic type or would you like some modifications done to it?

Answer 4) Yes I would like the layout to be same as I am very used to using a generic calculator and it would be best if no major changes were done to it.

#### Question 5) Do you know use Euler's number in your studies?

Answer 5) Yes. Euler's number is used in various area of mathematics such as calculus, differential equations, discrete mathematics, trigonometry, complex analysis, statistics.

Question 6) Apart from the basic mathematical operations, what other operations would you like to have that would complement the irrational number?

Answer 6)It would be great to have a few functions of a scientific calculator, but none in particular.

Question 7) Do you know use Euler's number in your studies? the reason and goal of this interview Answer 7) Euler's number is used in various area of mathematics such as calculus, differential equations, discrete mathematics, trigonometry, complex analysis, statistics.

Question 8) Do you want the calculator to solve any trigonometric functions ?

Answer 8) No.

Question 9) What operations would like to be done automatically by just pushing a key?

Answer 9) Euler's number is very useful in calculating compound interest. So it might be useful to have a button to calculate that.

Question 10) Can you think of any other irrational number that can be combined with the Euler's number for some common problems?

Answer 10) Yes, as a matter of fact Euler's number is an integral part of a calculation involving Gaussian Integral, so it would be good if the calculator could also compute the Gaussian Integral.

Question 11) What kind of user interface would you like for the device; Commercialized: More features and simple design or Personalized: Only useful features and comfortable design?

Answer 11) I would prefer a personalized design which would be easy for me to use and has only has the features which I use regularly.