

Mekanizmalar!

Mekanizmalar. Ever heard of it? No, it's not a lost password from *1,001 Arabian Nights*. In fact it is a website — since 2004 — that employs the universally loved art of animation (*Adobe Flash*) to clearly explain the basic and not-so-basic workings of mechanisms — including geared, pneumatic, hydraulic and electronic components.

The man behind Mekanizmalar is **Dr. Seyhan Ersoy**. He journeyed from his native Turkey to the U.S. in 1979 to complete his Ph.D. studies, and then returned home to begin a career as an associate professor. He came back to the states in 1989, working for United Technologies Research Center as a researcher in collaboration with Lehigh University. He later held programmer positions — until 2009 — at AT&T, IBM, Cadmus and USA Tech. Regarding gears, Ersoy puts it this way: “From 1985 – 1989, I worked in a company as a consultant in which I learned a great deal about pneumatic, hydraulic and, to some degree of experience — gears. I read a lot about gears, but I do not consider myself an expert. I consider myself a dedicated learner.” Now 66, Ersoy says he is “doing what I always wanted to do — work on something that I like.”



And we thought you'd like to know more about this interesting gentleman — especially after you've had a chance to visit his website (*Mekanizmalar.com*).

ADDENDUM (ADD) *What compelled you to begin Mekanizmalar.com? — e.g., are you an engineer expressing himself through animation, or an animator expressing himself through engineering?*

SEYHAN ERSOY (SE) I am a mechanical engineer who made his living by doing programming. Therefore I consider myself as a programmer with a strong passion about mechanical

engineering. This puts me in a special position. Having engineering knowledge and programming skills are a good combination for mechanical animators.

(ADD) *Is your intent to educate?*

(SE) The short answer to this question is yes. If I elaborate, I could say my intent was to educate young engineering students by exposing complexity of a mechanism with animations. They say “a picture is worth a thousand words;” but with current technology we can comfortably say that “a picture is worth a thousand words — but animations are priceless.”

(ADD) *How is the traffic level on the site? Keeping you busy? I understand you have a day job?*

(SE) I have a part-time day job. I teach at Lehigh University as adjunct professor; I teach *Mat Lab* and *Arduino* programming to engineering students. Traffic level is changing through the time of year. During the summer when the schools are on vacation, traffic goes down, but gradually it rises slowly.

My site keeps me very busy and I enjoy doing it. They say “Find a job you like doing and never work again.” But from time to time I do some stuff that no one out there can do; it gives me a lot of satisfaction.

(ADD) *Do any technical training schools (or high schools, jr. high — lower?), companies, etc. use your tutorials for training purposes?*

(SE) I know schools are using my tutorial through *YouTube*. (Power transmission giant) Danfoss purchased the rights to use (my) hydraulic pumps videos for internal training. One publisher purchased my T-head engine animation rights to use in a thermodynamic book they were going to publish. A utility company wanted me to do two animations for them; one was a pumped storage system and the other one a Francis turbine animation.

(ADD) *Could there be plans for something like that in either a commercial or NFP scenario?*

(SE) We live in America, and in America there is no such a thing as a free lunch. Having said that, let me elaborate on your question. I would love to do this kind job commercially and make money out of it. But it requires finding the right connections (and) with the right resources. Since I have limited connections, I find it like chasing a pipe dream. I believe the future is in the animations and the right team with the right content can be a great competitor to *www.howstuffworks.com*. NFP is not seems attractive to me; however as far as money is concerned, I am in the red. If I flip burgers at McDonald's for the amount of time I put to my animations, I would be in a much better situation than I am in now. Making money doing something you hate, or doing something you like with less money — I chose the latter. ⚙️

www.mekanizmalar.com

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Rotation Speed

$$\frac{R}{L} = 1 + \frac{G}{R} = 1 + 4 * 2$$

If “A picture is worth a thousand words,” what is the value of moving pictures? This animated planetary gearset tutorial is just one example to be found at the *Mekanizmalar* website (courtesy *Mekanizmalar/Ersoy*).