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PERSONAL STATEMENT

In addition to cutting-edge scientific researches, exploring the ways and paving the road to improve engineering materials to match industrial and market needs is my main concern as a PhD candidate with some experiences in industrial sections. Actually I am focused on polymer materials and nanocomposites and their applications in tissue engineering in my PhD course. I believe that the nanobiotechnology has the ability to make a solstice in human health care systems.

EDUCATION

PhD, Nanoscience and nanotechnology- September 2013 – now.
Sharif University of Technology – Tehran

- PhD major: nanomaterials
- Thesis: investigation and improvement of conductive polymer nanocomposites to use in tissue engineering and nerve restoration.
- I am so hopeful to conduct a project according to world's common trends and make my contribution in global achievements in the field. Therefore we studied the literature to find opportunities to improve engineering and biological properties of polymers with application in nerve restoration. Our goal is to improve materials to make nerve guide conduits.

MSc, Materials Science and Engineering- September 2010 – January 2013.
Sharif University of Technology – Tehran

- MSc major: nanomaterials
- Thesis: Investigation on polypropylene/nanoclay nanocomposites. 19.7/20.
- We prepared nanocomposites via melt mixing and studied the effect of composition and compounding parameters on the structure and properties of nanocomposites. We had a deep study on the literature and we designed a new fabrication route based on commercially available polymers on Iranian market to optimize the clay dispersion in PP. The results was satisfying and we introduced new compounds to automotive industries in Iran. The project was conducted in collaboration with Parsa Polymer Sharif Co.

BSc, Materials Science and Engineering- September 2005 – January 2010.
University of Semnan – Semnan

- BSc major: industrial metallurgy
- Thesis: Investigation on aluminium/CNT nanocomposites. 20/20.
- We prepared nanocomposites via powder metallurgy and studied the effect of composition and fabrication parameters on the structure and properties of nanocomposites.
- During my BSc, I won a fund to run a project on Al/CNT nanocomposites from Semnan University Office of Exceptional Talents.

TEACHING EXPERIENCE

Tutor Assistant – September 2011 – June 2012
I assisted Dr Farrahi in "Materials Science (BSc)" and "Metallurgy in Fabrication (MSc)" courses in mechanical engineering department in Sharif University of Technology for two semesters.

Lecturer in Nanoscience and Nanotechnology – September 2006 – March 2016
In more than 250 lectures and courses (more than 1800hrs) I taught different aspects of nanoscience and nanotechnology to different kinds of apprentices. I had more than 20 short courses for companies in different industrial sections all over Iran. These activities provided suitable conditions for me to improve my knowledge about diverse aspects of materials science and nanotechnology and also to get familiar with industrial issues.

Teacher – September 2009 – June 2013
Physics and mathematics teacher in Tehran schools

HONORS

6th Festival in Entrepreneurship and Business Development – October 2014
Ranked 2nd by a business plan on producing nanosensors for monitoring the safety of dairy products, which attracted some companies- www.vccup.ir
Sharif University of Technology, Tehran

National University entrance competition (PhD) – Septemer 2013
Ranked 12th in nanomaterials section – www.sanjesh.org

3rd National nanotechnology competition – April 2012
Ranked 10th among more than 3200 competitors – www.nano.ir

2nd National nanotechnology competition – April 2011
Ranked 4th among more than 3200 competitors – www.nano.ir

National University entrance competition (MSc) – Septemer 2010
Ranked 4th in nanomaterials section – www.sanjesh.org

Scientific activities

Khwarizmi junior festival – 2013 – 2015
Chief of referee committee in Nanotechnology section in Tehran province
Khwarizmi competitions are held in Iran in each year in two main parts, international and young. It is one of the most prestigious scientific competitions in Iran and is held by the ministry of science research and technology. I was the chief of referee committee in nanotechnology section in Tehran province for 3 years. Our main task was to investigate the received projects and to evaluate the technical level of works and accuracy and correctness of results. On the other hand, I was the person who had to present selected projects to the final referee committee and had to answer their questions. To do this, I gathered 7 experts in different fields related to nanotechnology and organized a team.
khwarizmi.ir/young/

Scientific committee of "National nanotechnology competition" – 2012 – Now
National nanotechnology competition is a scientific competition in which many graduated students in the fields related to nanoscience and nanotechnology take part. Scientific committee is the directing board of the competition and one of its tasks is to prepare the questions. To do this activity, I studied many books and papers to understand the multifarious aspects of nanoscience and their applications.
Iranian nanotechnology initiative council - www.nano.ir

Scientific committee of "National nanotechnology Olympiad" – 2009 – Now
National nanotechnology Olympiad is scientific competition in which any highschool student can take part. Scientific committee is the directing board of the competition and one of its tasks is to prepare the questions. To do this activity, I studied many books and papers to understand the multifarious aspects of nanoscience and their applications.
NanoClub - www.nanoclub.ir

WORK EXPERIENCE

Consultant – September 2007 – March 2016
As a nanotech expert, I was in collaboration with NanoClub (Iran program for developing the nanoscience in highscools). My activities: writing didactic papers, preparing educational courses, teaching, preparing lab instructions, designing questions for scientific competitions and etc.
Nanoclub - www.nanoclub.ir

Job Title – Dates of Employment (date format should be Month YYYY e.g. November 2011 – May 2012)
Company Name - www.examplelink.co.uk
Location

R&D researcher – September 2011 – March 2012
My main project was to develop the composition of polyolefin based parts in automotive industry. Investigating patents, papers and designing experiments to achieve desired properties and collaboration in compounding line design for new factory was the job components.
Parsa Polymer Sharif Co.

Tutor manager – April 2012 – May 2014
TAVANA is a national program to supply the educational nanotech laboratory equipments and to support the laboratories to run educational and research programs. My main activities were to investigate the educational aspects of equipments and to design the courses and training our teammates to become expert to achieve the goals. I passed training courses for each of equipments like electrospininng machine, sputtering machine, scanning tunnelling microscope and etc.
Nanotechnology Researchers Co. - www.rnt.ir

Consultant – September 2013 – March 2016
Consultant and project manager in observation nanotechnology applications in different industries, mainly in 1- agriculture, food and packaging and 2- polymers, resins, paint and composites fields.
More than 45 industrial reports on nano-enabled products and technologies were written and published among Iranian industries in this period of time. We attended more than 15 industrial fairs to investigate the industrial issues and designed some plans to find solutions by nanotechnology to improve industrial products and overcome the mentioned problems.
Iran Nanotechnology Initiative Council - www.nano.ir

Technical valuator – April 2015 – December 2016
Knowledge based companies is Iran are being evaluated by the government and some programs are conducting in Iran to support these companies. To evaluate the technical aspects of products, there are some “technical valuators” that investigate the accuracy and correctness of the products as well as the complexity level. I was a technical valuator working with an institute to approve nano-enabled products for 7 companies.