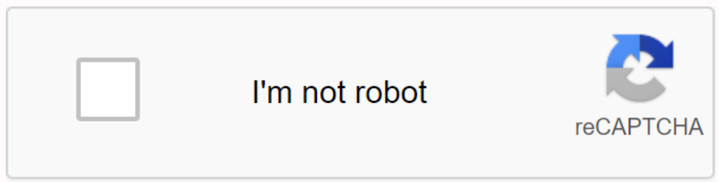
Stanford electrical engineering phd



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Electrical engineers are involved in the design and resolution of problems in the field of electronics. They work in many areas, including health, computing, and communications [source: Princeton]. If you are considering a career in electrical engineering, you will need to do well in mathematics and science while in high school [source: BLS, College Board]. Here's what to do to become an electrical engineer. Graduate in engineering with a degree in electrical engineering. There is also the option to complete a two- or four-year program in engineering technology. Those who complete a four-year program will obtain a qualification considered equivalent to a bachelor's degree. If you study in a four-year course without a degree, your course work will be more practical, while if you study in an undergraduate program your course work will include more courses on the theoretical side of electrical engineering. As an electrical engineer, you'll learn all about electricity, including how it works, how it's used to power supply, and how to design power plants. Make sure that the institution you are studying in is accredited by the Engineering and Technology Accreditation Council (ABET). This is important if you need to be licensed as an engineer. Gain experience working as an apprentice under an electrical engineer. Get license by the state you want to work in. This is especially important if you want to work directly with the public. To be a graduate, you will need to graduate from a program accredited by the Engineering and Technology Accreditation Council, as well as four years of proper work experience. You will also need to pass a state exam to obtain your license. Follow the latest technological advances, continuing to take courses in the areas relevant to your work [source: BLS]. Advertising From batteries to cell phones to computers, electrical engineers touch on technologies that touch people's lives. Electrical engineers design, study and operate devices and systems that use electrical and electromagnetic energy. They are behind improvements in communication technologies and computers. Employers in the area require different levels of education, depending on work. The U.S. had 154,250 electrical engineers earning a median annual income of $85,920 in May 2011, according to the U.S. Bureau of Labor Statistics. To get a basic level job in the industry, you need a bachelor's degree in electrical engineering from an ABET-accredited program. Electrical engineering courses study in classroom, laboratory and field. In college, electrical engineering students take engineering math courses, electronic circuits, electromagnetic fields and waves, and signal processing in addition to written communication. To prepare for graduation, high school students must write, write, trigonometry and calculus. To work in research and development or as a university instructor, electrical engineers need a master's degree in science in the field. Graduate students take courses to acquire deeper knowledge of specific areas such as computer hardware and software systems, electronic devices and fields, waves and radioscience. Graduate students can take a master's degree through the course or by researching and writing a thesis. Some graduate schools require students to have computer programming skills before starting classes. Earning a Professional Engineer's license can increase job prospects. Some employers encourage licensing and consider the credential a demonstration of seriousness about the field. Although engineers do not need the Designation of P.E. to work for some companies, most states make it illegal to start their own engineering business or work as an independent consultant without the credential of P.E. In addition to education, electrical engineers need specific characteristics to do so in the industry. They should be able to apply classroom knowledge to new technologies. They need communication skills to explain projects and reasoning, and give instructions to co-workers during technology development and production. They should be guided by details to track multiple design elements and technical traits during electronic component research and testing. They should also be able to use math for analysis, design and troubleshooting. Electrical engineering is not a high-growth field. The U.S. Bureau of Labor Statistics expects the number of manufacturing jobs to increase 7 percent from 2010 to 2020, slower than the average for all U.S. occupations. Although companies need engineers to invent new technologies, the number of manufacturers hiring engineers for development will fall. The best opportunities will be in engineering services companies, not in manufacturing companies, because many companies will reduce hiring costs for engineering needs rather than directly employing engineers. Computer systems design and wireless telecommunications are two sectors that will continue to need electrical engineers. Electrical engineers design, develop and test electrical equipment. They work with electric motors, radar and navigation systems, automobile and aircraft electrical systems, communication systems and power generation equipment. Electrical engineers are licensed by the state. While state licensing requirements may vary, there is a general four-step process to become a bachelor's degree in electrical engineering in the U.S. About Author Karen Schweitzer is a writer and author with more than 10 years of experience. She has written 11 nonfiction books and currently works as a senior editor for Education-Portal.com. In her spare time, she blogs and assists clients with writing articles, editing, reviewing and other projects. No Without engineers, everything from lighting your home to your smartphone wouldn't work properly. Needless to say, electrical engineers make our world go round, and they are the ones who lead the latest innovations in technology. If you plan to create the next revolutionary product in the world, you'll need to at least understand the basics, and this package will take you up to speed for only $25.The Final Electrical Engineering Master Class Pack features 5 comprehensive courses on how to become an electrical engineer. If you are new to the field, you should consider taking the Complete Course of Electrical Circuits for Electrical Engineering first. This will introduce you to the fundamentals of dc circuits, such as nodules, branches, and loops. You'll also learn important theorems, such as Kirchoff's laws, using hundreds of examples. Near the end of the course, you will finally learn how to apply all your new knowledge in practical applications. Once this course is completed, the additional courses will delve into topics such as electrical substations, distribution, DC machines and even solar power. Your first step to becoming an electrical engineer is to master the fundamentals, and the Final Electrical Engineering Master Class Pack has all the knowledge you need to do so. You can pick up this 5-course package on sale for $25, or 97% off. Change-free prices Don't wait for Black Friday — you can get these discount tops these days! The Ultimate Electric Engineering Master Class Bundle - $25See Deal This story, Learn the basics

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