

IEEE Senior Member Upgrade Application Coaching
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Updated: 18 April 2023

There are four sections for you the applicant to complete: Nominee Information, Professional Experience, Significant Performance, and Attachments. As your nominator, I will take care of the References for you, but I will help you with the Professional Experience and Significant Performance sections.

As your Nominator, I may ask for additional or rewritten information for any of the listed sections. Please put that information in a Word.doc or equivalent when you send it back to me. Please do not use a pdf; I cannot load the information from a pdf. Also, please do not simply drop your information into this Word document; start a new document!

Nominee Information starts with your basics from your IEEE membership profile which will include your membership level. If you are a Student Member, a Graduate Student Member, an Associate Member, or an Affiliate Member, you **must** first upgrade your membership to full Member before we can proceed. Only IEEE Members and Life Members can be upgraded to Senior Member (or Life Senior Member).

Below your name will be a box labeled **Preferred Name:** Please look at this and make sure your name is there exactly as you want it displayed. If your name is wrong or incomplete here, if *will* be wrong or incomplete on your plaque and certificate!

Education is next; this is drawn from your IEEE profile.

University College Name:

University College location: city, state/province, country

Field of Study:

Degree:

Date Started: month/year

Date Graduated: month/year

If your education is not shown or if any of the boxes are incomplete, there should be a blue ball with a white plus to add degrees. You will need to complete a new entry and then delete the old one for each degree. If the blue ball doesn't show for you, you will need to complete the following for each of your degrees or studies so I can load it for you. It **must** be in the above format.

Please do not list a future or in-progress degree! This is for completed degrees for which you have a diploma in hand only!

Next, list your **current employer**, your **job title**, and how many **total years of professional experience** you have, not just with your current position.

You will next need to mark which of the following are appropriate for you:

- Engineering
- Computer sciences and information technology

- Physical sciences
- Biological and medical sciences
- Mathematics
- Technical communications, education, management, law and policy
- Other – if your current position is not covered in one of the IEEE designated fields you'll need to say "Other" and specify it here.

Professional Experience is your education/employment history. For this section, you will need at least 10 years of professional experience. However, a bachelor's degree is considered 3-years towards the 10-years required, a bachelor's and a master's degree 4-years, and a Doctorate 5-years. The balance must be employment after the respective degree because work and school cannot overlap. In some cases, it will be easier to count the employment time without an advanced degree. You must list each education or employment in the following format:

Dates (month/ year to present)

Employer

Location

Title

Dates (month/ year to month/ year)

Employer

Location

Title

Dates (month/ year to month/ year)

Employer

Location

Title

Do not worry about details, the details will come later. However, please understand that education/employment dates cannot overlap! If you were working while earning a Master or PhD, you can claim either the one year for earning the degree, **OR** the years working while earning the degree but not both! You are not allowed to "double-dip".

Significant Performance: This is very important. This section is intended to give the reviewer knowledge specifically of what YOU did related to some particular projects and how your contribution was significant. This is **not** your employment as a whole; it is for discrete projects within your employment. It is also not the place for awards, recognitions, personal achievements, or congratulations. The issue here is, what work did you do that was significant and why was it significant?

You must be able to show 60-months of Significant Performance. Please understand that the text box for Significant Performance is limited to **4997** characters and spaces. If your writeup is too large to fit, then you are not describing your work correctly. Simply filling the allowable space with words is not going to help, but it may hurt you. Also, while 60-months is the minimum, *please* don't claim more than 70-months! I have seen applications with 100-months or more. This is a waste of effort; it diminishes the available space to detail the necessary Significant Performances and no one is going to read past 60-months.

Your description of your project work and your involvement needs to be significant. General statements such as "was a part of the team" or resume material such as "2005 through 2006

design engineer" is not sufficient to provide your application reviewer specific knowledge of what you did that was significant. Nor, is posting a list of duties and responsibilities considered "significant".

Suggestions are to define each specific example of significant performance in the following format:

- I did X. (Describe what X is so that someone NOT in your specific field would be able to follow and understand).
- I was responsible for Y as part of X.
- The significance of my part was ...
- I spend Z time on X.

This is your time to brag, use it! Brag about what you did!

Patents: Similarly, merely writing for or being granted a patent does not in itself prove Significant Performance. The research or work performed that led to the patent filing is Significant! Describe that and specifically, your role if more than one person was involved in the patent application. Then, describe why the patent was significant to your work or to your company. Don't forget to put the dates of your research and patent efforts plus how many months you are claiming.

Listed below are some examples from successful applications for you to use as a guide. The examples are ONLY suggestions as many other formats have been used with successful applications. Candidates that have both commercial and academic experience can use each experience type as necessary to provide the required 5 years of demonstrated significant performance.

Engineer in a Commercial Company

Example 1

Feb 2020 – Jan 2021

Staff Engineer

Central Power and Light

San Antonio, Texas, USA

In 1991, I researched, developed and documented testing and commissioning procedures for relay technicians. It was significant in that Central Power and Light was just beginning to use microprocessor-based protective relays of varying manufacture and models. The procedures I developed were used as standards to install those devices correctly and reliability for years to come.

[6 months]

Example 2

March 2017 - Nov 2018,

Sr. Engineer,

Eyelock LLC,

Everywhere, USA

I developed a new image processing algorithm for separating iris area from eyelids and eyelashes in eye images used for iris recognition. I also developed quality filters for eye images, which measured level of exposure and quality of focus. Both were promptly incorporated into my client's product as key elements in bringing low-cost iris recognition to the market.

[20 months]

Jun 2012 - Feb 2017,
Engineer,
AgilityVideo LLC,
Somewhere, USA

I did \$500,000 worth of feature enhancements to a large deployment of video analytics software on 270+ surveillance cameras guarding the tracks and tunnels of the Montreal subway system from intrusion. I took hands-on responsibility for systems design, detailed specifications, recruitment of a programming team in India, international project management, test design, onsite installation and testing.

[50 months]

Jan 2009 - Oct 2010,
Performer
Ansaldo STS USA (AKA Union Switch and Signal)
City, Provence, Country

I led the turnaround of a 10-year \$100M+ software development for command and control of Union Pacific rail operations, including state-of-the-art artificial intelligence for real-time prediction and planning of train routing. This involved critical personnel changes, sensitive renegotiation with Union Pacific, establishing new processes for specification and testing, and a difficult lay-off to control costs. The direct consequence was avoidance of \$15 million in penalties and the successful introduction into railroad operations.

[21 months]

Educator in Academia

As unfair as it sounds, just getting an advanced degree or listing a bibliography of publications with your name is not considered by IEEE to be Significant Performance. What a bibliography doesn't explain is what your contribution was, how much time was dedicated to the publication, or what was the significance of the publication. A proper format would be to follow the industry example above for your publication work, i.e., how long did you spend on it, what was your contribution, and what was the significance of the research and/or publication.

Similarly, merely writing for or being granted a patent does not in itself prove Significant Performance. But the research or work performed that led to the patent filing is Significant! Describe that!

Also, simply writing for and receiving research grants is **not** considered Significant! What was the intent of the research, how many researchers did you supervise (if any), how long was the research, what were your results, and why were the results significant? These are the details needed.

Please note also that you can claim the research work or the degree, but you may not claim both at the same time. Whatever research you did **after** the degree you are claiming can count.

Example 1

Sept. 2006 – Dec. 2010,
Graduate Student Researcher
Institution

Location

I redesigned the software engineering project courses at XX University in order to coordinate graduate and undergraduate student projects. Graduate students were assigned to serve as team leaders of undergraduate project teams in the development of embedded software solutions for Palm OS handheld devices. This new approach to software engineering education resulted in a conference paper publication entitled "Using Unfamiliar Platforms in Software Engineering Projects" which appeared in the proceedings of the International Conference on Information Technology, April 2005, Las Vegas, Nevada. The project data was collected over four academic semesters spanning four years. The data also fed into a graduate student thesis project which I led. **[21 months for research after Bachelor Degree, OR 1 year for MS degree]**

Example 2

Sept. 2006 – Dec. 2010,

Academic Instructor

Institution

Location

In this position, I was hired as an instructor of infometonics. I noticed that a course on digirampoids was needed in the current curriculum, so I developed a full course on digirampoids with substrate issues. Getting the course approved by the department and the College Academic Board were exercises in self-flagellation until I prevailed. The course is very popular now and has been taught for the last 2 years, not just by me but by others, too. I spend the better part of 4 years designing and developing the course. My tenure was approved recently based on the development of this course alone.

[40 months]

Example 3

Sept. 2006 – Dec. 2010,

Academic Instructor

Institution

Location

I published a book in 2010 about the place of modern electronics in antique oil lamps. The research compilation for the book took me 2 years alone, and another 2+ years to produce it. The book is now regarded as an industry standard for antique oil lamp research.

[48 months]

Attachments

Your resume or CV in the Sr. Member format needs to be printed to a pdf and uploaded under Attachments. If you want to include a bibliography of publications or other documentation, this is the place to do it. The drop-down box will let you know which types of attachment are acceptable.

References

The references here are not character references. They are actually pre-reviewers to help the A&A Panel members with their review. The references do not even need to know you, but they must be IEEE Senior Members and should be familiar with either your work or with the type of

experience you are claiming. I have a list of Sr. Members of various backgrounds and experiences who are willing and ready to be Reference Writers.

I try to assign a Reference Writer from the applicant's described field. Although I may say that what you have submitted looks good, if the Reference Writer demands changes or more detail, then the Reference Writer must be satisfied before the nomination can proceed.

James