Mentoring Engineering Students: Challenges and Potential Rewards

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Abstract: Engineering faculty have many types of relations with their students. In class, they are primarily the facilitators of learning. Also, they act as advisors guiding students through their years of education. In some cases, the relationship between the student and the professor evolves into a mentoring relationship –which is the topic of this paper. This paper takes a practical look at the challenges and rewards of experienced engineers and educators becoming mentors for students or young practicing engineers. The author recommends an approach to mentoring that is deep in self-evaluation, one that considers the intellectual, social, cultural, and professional development needs of students and young professionals, and the need for taking little steps - one step at a time - that may make a big difference in student's performance and attitudes towards learning. It is argued that such an approach to mentoring will help encourage more underrepresented groups, such as women and minorities, to pursue careers in engineering. The paper, also, describes some attributes of mentoring and suggests how a faculty member might become a good mentor to students.

I. Introduction

Mentoring is not a new concept. Many of us have benefited from a trusted mentor. Perhaps we called them a friend, family member, or an advisor, whose opinions and experiences we trusted. They created an intangible bond with us through their experiences, opinions, and the time they took to give us advice and counsel. As professional engineers, many of us have the same opportunity - by getting involved in two aspects that are vitally important to the engineering profession. The *first* is to make a positive impact on the life of a young, aspiring professional or student. The *second* is to help solidify the role of engineering in a fast paced, diverse landscape. How best to start? Begin by assessing what we have to offer as mentors. The main role of a mentor is to stimulate students or young professionals to think in new and creative ways. One of the biggest values to bring to mentoring is a broad perspective - and how that perspective can be of value to students.

From author's experience, a key issue in "starting where they are" relates to our own preconceived notions about students and their abilities to evolve into the field of engineering. It is all too easy to consider general educational trends that indicate a woeful lack of most students' preparation in math and science. The logical extension of such thinking is: they don't have what it takes to succeed in engineering. Let us not waste our time and resources. In light of this, do we simply give up? Or do we rally our resources to help students do better? There is only one real option - how do we meet students where they are in their educational preparation, and how do we help them develop their core competencies so they could one day become engineers?

The paper takes a practical look at the challenges and rewards of experienced engineering educators becoming mentors for students or young practicing engineers. The author recommends an approach to mentoring that is deep in self-evaluation, one that considers the intellectual, social, and professional development needs of students and young professionals, and the need for taking little steps - one step at a time - that makes a big difference. Such an approach to mentoring will help encourage students, particularly underrepresented groups, to pursue careers in engineering.

The relationship between the mentor and the student may last for many years after student's graduation. Often it is difficult to define, in a clear manner, what mentoring is and how a professor can become a good mentor. The paper describes some attributes of mentoring and sketches out how a faculty member might become a good mentor to students.

II. How to Become a Mentor?

So how does one become an effective mentor of engineering students? Perhaps we could list the attributes of good mentors and simply say "go ahead and do that." But this approach is not without precedent. The National Academy of Sciences takes this approach in its book, *Advisor, Teacher, Role Model, & Friend.* [1] It advises new mentors to try to implement most of the following:

- Listen patiently to their mentees.
- Try to build long lasting relations.
- Don't abuse your authority.
- Nurture self sufficiency.
- Establish "protected time" together.
- Share yourself.
- Be constructive.
- Don't be overbearing.
- Seek the advice of your own mentors.

But such a list is not enough. Listing the instructions for being a good mentor is like trying to learn to ride a bicycle from an instruction book, where you are instructed to: Sit down on the seat, Grasp the handlebars, and Pedal with your feet. These are good instructions, but of little value without actually getting on the bicycle and trying it out. [2] Learning to be a good mentor requires dedication and effort, although knowing some of the rules, just as in learning to ride a bicycle, are useful and helpful, but not enough.

To start the journey toward becoming a mentor, he /she will need to thoroughly understand the role of mentoring. Look at a role they are already familiar with. Most of us have had a supervisor, a boss or coach who has made a positive difference in our lives. Those people wore many hats. They acted as, role models, cheerleaders, policy enforcers, advocates, and friends. As mentors they will wear these same hats. Mentors, presumably, understand the need to assume a number of different roles during the course of a mentoring relationship, but successful mentors also share the same basic qualities: [3]

- A sincere desire to be involved with a young person.
- Respect for young people.
- Active listener.
- Empathy.
- See solutions and opportunities.
- Be flexible and open.

To start, new mentors should attempt to develop relationship with their mentees; exploring values, interests and goals. Soon they will find that they are making a difference and having a positive effect on their life. What they may also be surprised to see is that they will be learning more about themselves, too. Mentoring doesn't just affect the young person. Mentoring is a shared opportunity for learning and growth. Many mentors say that the rewards they gain are as substantial as those for their mentees. Being a mentor enables them to:

- Have fun.
- Achieve personal growth and learn more about themselves.
- Improve their self-esteem and feel they are making a difference.
- Gain a better understanding of other cultures and develop a greater appreciation for diversity.
- Feel more productive and have a better attitude at work.
- Enhance their relationships with their own children.

An effective mentor is willing to take time to get to know his /her mentees, to learn new things that are important to the young person, and even to be changed by their relationship. Undoubtedly, the mentor has to accept the challenges and rewards of mentoring a young person. Also, he /she will experience the benefits that will last a lifetime. [3]

III. The Mentor as a Friend

Some academics believe and advice strongly in maintaining a business-like relationship between mentors and mentees. They claim that a professor should not have any casual relationships with students, and such relationships "conflict with our fundamental obligations as faculty members,[4] and the ethics of the relationship require that the faculty member remains "dispassionate," avoiding any appearance of partiality. The faculty member should "not seek to be their psychiatrist, friend, or lover." [5] While some of us may agree about the psychiatrist and lover part, many of us do not agree that friendship between students and faculty members has ill effects and should not be allowed. Too often we tend to be overly cautious and keep students at a distance, not offering them the encouragement and support they need.

I firmly believe that teachers at all levels should try their best to offer friendship as part of their professional role. There are times and situations where friendship is exactly what is needed in the mentoring relationship. Such a friendship does not have to be destructive or result in unjust impartiality .[2] A note of encouragement, a friendly gesture, asking underachieving student to chat, answering e-mail, paying attention to students'

extracurricular activities and achievements----are all indicators of friendship and do mean a great deal to students.[2] As pointed out by Richard Baker, "The key ethical point is that the professor-both inside and outside the classroom- should act as a friend." [6]

There is a clear difference between a "friend" and "pal". The professor/ mentor has a clear position and special power relationship with the student/ mentee, and may be called on to evaluate performance and to do so "dispationately".Therefore; a mentor can not be a pal, shooting hoops with students, spending time with them in "restricted" places such as taverns and bars, or joining them in night activities such as dancing, etc. A mentor trying to be a pal may destroy the fragile relationship between the student and the professor that is such an integral part of education. [2]

IV. How to Get Started and Proceed Onward?

How best to start? Begin by assessing what you have to offer as a mentor. As a mentor, your role is to stimulate students or young professionals to think in new and creative ways. One of the biggest values a faculty member can bring to mentoring is a broad perspective, and how that perspective can be of value to students. From author's experiences, a key issue in "starting where you are" relates to our own preconceived notions about students and their abilities to evolve into the field of engineering. It's all too easy to consider general educational trends that indicate a woeful lack of most students' preparation in math and science. The logical extension of such thinking is:they don't have what it takes to succeed in engineering. For example, numerous international studies indicate that, compared to peers in other countries, U.S. students underachieve in math and science.

The French-based Organization for Economic Cooperation and Development (OECD), comprised of more than thirty member countries, conducted an international comparison in 2003 of mathematics, reading, and science skills among fifteen-year-olds [7]. More than 250,000 students in forty-one countries participated in the assessment. On the mathematics scale, the United States ranked twenty-fifth; on the science scale, the United States ranked twentieth; and on the reading performance scale, the United States ranked twelfth. Other educational indicators are equally alarming. Nearly half of all high school students in some of the nation's largest cities drop out before receiving their diplomas. [8] In some parts of the country, about a third of all high school students fail to graduate [9], and among those who do receive their high school diploma, many find that they are not prepared for the rigors of college academics. Equally alarming, more than a third of first-year college students received or planned on getting remedial help in math during their freshman year.[9] And finally, even though males and females take similar math classes and achieve similar scores in the K-12 environment, the participation rate of males in math is far greater than that of females after high school. [10] In light of these findings, do we wave the white flag and simply give up? Or do we wave a red flag to rally our resources to do better? There is only one real option. Yet, ***how do we meet students where they are in their educational preparation***, and how do we help them develop their core competencies so they could one day become engineers?

As faculty members, we must remember that not all students coming into the college or university environment will be developmentally ready for the academic challenges they face. Our role is to help students develop their potential and capabilities so they can earn an engineering degree. How do we develop them? The best way, in my opinion, is to approach one's development from intellectual, social, and professional vantage points. In my role as a faculty member, I work to develop the intellectual capability of my students. But the other elements - social and professional development and maturation - are equally important. All of these attributes carry equal weight because they come together in the same package. In increasing fashion, we must develop students not only intellectually, but in the other dimensions as well so they can lead, compete, and participate in, or contribute to, a complex and increasingly diverse workplace. [11]

It is not just the students who stand to benefit from an effective mentor. Engineers, new to the profession, also need mentoring, often until the point of professional licensure and even beyond. Effective mentoring of young engineering professionals is a two-way street. A young professional's energy, new ideas, thirst for information, and willingness to learn, give any organization spirit and momentum. In mentoring a young professional, it is important to provide opportunities for the mentee to take part in team building, brainstorming and planning sessions, and to build relationships throughout the organization. Such processes and experiences are of significant benefit to the mentor as well. Mentoring is perhaps the best way to ensure that one's intellectual and experiential legacy can be tapped, improved upon, and be of continual benefit to the organization. Let us not forget that: engineering is a profession in which learning occurs continuously. [11]

It begins with formal education and continues through various developmental experiences, including a positive, long-lasting mentoring relationship. It was noted above that mentoring provides organizations with spirit and momentum. That is true! In addition, it is the personal nature of these relationships that give organizations their strength. Mentoring, however, is one part of the picture. Life experiences are another. We must continue to push for new ways to expose students to diverse experiences. That is how they will grow. It is one thing to watch and listen, and another entirely to be in the middle of a real-world situation experiencing it. Students gain from activities that include profession-related travel abroad, cooperative experiences, and community involvement projects that put them in contact with a wealth of opinions, new ideas, and alternate ways to approach an issue. How do we accomplish our lofty objectives? We start where we are and help the next generation through mentoring.

V. Mentors' Attributes and Outreach

The most effective mentors, irrespective of their field of study and /or concentration, share similar attributes. What they have are the abilities to listen, question, challenge, and offer feedback and support. These are the qualities central to faculty roles as mentors. What mentors also have are young people who stand before them with a variety of backgrounds, educational preparations, and aspirations. The mentors would strive to raise their capabilities and help them develop in a holistic fashion intellectually, socially, and professionally. Each student or young professional is a collection of his or her individual backgrounds, traditions, and aspirations. They also each represent an opportunity - an

opportunity for teachers as mentors to use their resource bases and reservoirs of experience in helping them prepare for an engineering career to last a lifetime.

A call to mentorship should not be an unusual thing to read. As educators and professionals, we have an obligation to help those who need to be nudged along the way. Mentoring a young professional or student is part of the package of professional responsibility. We do not need another study to make this happen. Just look at each student individually, on a case-by-case basis. That's the secret. We just have to move beyond what engineering has historically been good at - systematic problem solving - and apply our special skills to solve a problem that could one day undermine the profession: a paucity of ideas and creative solutions that could only come from the mindset of those who are currently unheard throughout the profession. [11]

In general, there are many qualities of good mentors. Some are not easily attainable, and do require firm commitment, self discipline, training, and patience. The author has noted in Table 1, some of these qualities that all mentors need, accept, affirm, abide by, and resort to when the need arises.

THE MENTOR IS:
• Approachable and welcoming in the office and outside.
• Shares information, knowledge and experience openly.
• Has good communication and listening skills.
• Understands the field of engineering and related areas.
• Has a network of contacts within the college, university and industry.
• Is motivating, encouraging, positive and empowering.
• Is willing to set aside /commit time to mentor someone.
• Is committed to making a difference, one individual at a time.
• Does not wait to be asked, approaches mentees when he/she feels there is need.

Table 1. Qualities that mentors should possess

It's amazing the differences that a personal commitment can make to the life of another. We cannot expect to change the professional makeup of engineering overnight, and perhaps not even in years. But, with individual commitments, we can take positive steps, one person at a time. [11]

VI. Mutual Acceptance and Satisfaction

The relationship between the mentor and the mentee can be mutually satisfying and rewarding to both party, but may also be the cause of anguish and pain. One may ask if the mentor /mentee system is a reliable one, or if some other system may be better? For example, consider a situation where every faculty member in a department advises every student in that department on equal bases. In time, would students not seek out one or more professors whom they have the strongest rapport and whose advice they begin to appreciate and value? Also, would the professors not begin to identify those students they most would like to advise and in whom they see their vision and aspirations become a

reality? In other words, positions are subject to change and students will eventually migrate to those professors /mentors who they most desire to be their mentees.Therefore, the mentor /mentee system can neither be selected nor imposed, but rather a natural outcome of vision, feelings, and convictions of the two parties involved.

Unfortunately, the advising system in most universities is not ideal and may force a student to accept an advisor without mutual consent, or changing student's field of study may force a change in advisors, or the faculty member may leave the university or go on leave, thus forcing a change in advisors. The process is dynamic and the relationship that looked good at the beginning of student's journey can go sour with student's maturity or as a consequence of added responsibilities. It is therefore possible for students to face what is referred to as "toxic mentors" [2].Students caught in a trap with a toxic advisor can either live with it and attempt to graduate as fast as they can, or try their level best to change their advisor. Neither is easily done. Changing advisors is often difficult and almost impossible in some universities, due to departmental rules and regulations on advising. An incompetent and/or an impatient advisor is often the cause of dropping out, or failure of students to accomplish their goals in engineering programs.

VII. Building Trust with Students

Underlying almost all aspects of learning is the element of trust. Trust between teachers/mentors and students is the affective glue binding educational relationships together. Not trusting teachers has serious consequences for students. Students are unwilling to submit themselves to the uncertainties of novel and unfamiliar approaches to learning. They do want to avoid risks and keep their deeply felt concerns private. The more profound and meaningful the learning is to students, the more they need to trust their teachers and mentors [12]. The importance of trust is experienced, time and time again, in students' critical incident responses, i.e., when students are off track and /or lose patience, and reach the stage where they can no longer exercise good judgment; then, they do need the care and attention of their mentors. At the center of the cluster of characteristics that make teachers /mentors more trustworthy in students' eyes are two components that may be described as teacher's *credibility* and teacher's *authenticity*.

Teacher's credibility: Teacher's credibility refers to teacher's ability to present himself/ herself as a person with something to offer to students. When teachers have this credibility, students see them as possessing a breadth of knowledge, depth of insight, and richness of experience that far exceeds the students' own. Shor and Friere [13] describe credibility as the "critical competence" that students have the right to expect of their teachers and mentors. Almost all students continually stress their desire to be in the presence of someone who is knowledgeable, skilful and an expert in his /her field, i.e., meaning that he/ she can help students come to grips with the contradictions, complexities, and problems they are experiencing.

Teacher's authenticity: Authentic teachers are those that students feel they can trust. [14] They are also those whom students see as human beings with passion, frailties, and emotions. They are remembered as whole persons, not as people who hide behind a collection of learned role behaviors appropriate to college teaching. In more specific

terms, students see four types of behavior as evidence of authenticity: i) teachers words and actions are congruent; ii) teachers admit to error, acknowledge fallibility, and do make mistakes in public view of learners; iii)teachers allow some aspects of their personality(outside their role as teachers or mentors) to be revealed to students; and iv) teachers do respect learners by allowing them to express their views and by being open to changing their practice as a result of students' suggestions.

Steps towards trust buildings: Trust is not something bestowed on teachers and mentors just because they are teachers or mentors, it must be earned! Undoubtedly, it takes time, effort, and willingness on the part of the teacher and the mentor to earn the trust of the students. Teachers must remember that not only can they not expect students to trust them from the outset; they most likely have to face accumulations of mistrust nurtured by actions of cynical, arrogant, and indifferent teachers in students' past. This is likely to arise when the teacher is facing the students for the first time; and face also their accumulated educational histories and their memories of the teachers they have experienced in the past. Building trust is neither quick nor easy. It may be very dispiriting to realize that one's efforts to build trust with his /her students may often bring little immediate results. With patience and persistence, however, and with the advice of those teachers and mentors with experience, it is possible to build trust where none has existed before. Undoubtedly, students will remember the time they spent with a *caring* mentor who has done his /her level best to understand and be of help to them. There are those steps and /or precautionary measures that the teacher /mentor should be aware of and attempt to follow, if and when the need arises. These measures include:

First, Avoid denial of one's credibility: Teachers' protestations that they don't really know any more than students do, and that they are simply there to help students realize that they already possess all the knowledge and skills they need. If students conclude that teachers' experiences have left them with no greater skill, knowledge, or insight than that already possessed by them, then there is nothing useful to gain from teachers. Teachers should be careful not to undermine their own credibility in the eyes of their students.

Second, Be explicit about one's organizing vision: It is quite normal to have visions that guide the practice. However, when teachers deny having any visions, plans, or educational agenda, yet through their actions do make it apparent that such visions exist and do influence classroom activities. Not to be explicit about teachers' visions, plans, and agenda, at the outset, confuses students and is fundamentally wrong [12]. Therefore, should be avoided.

Third, The congruence of words and actions: Few things destroy students' trust in teachers and mentors more quickly than teachers who say they will do one thing and proceed to do something very diffenrent.Or, teachers who espouse one set of plans and principles then proceed to implement something else. Teachers ought to be careful and take necessary measures to safeguard themselves against falling in this trap.

Fourth, Be willing to admit that you make mistake: Teachers and mentors who acknowledge that they do not have all the answers and that, like their students, they sometimes feel out of control. Such acknowledgement helps reduce the tension students feel about their own need to be seen as perfect by their peers and teachers. While declarations of fallibility from teachers who earned credibility are appreciated by the students, the same declarations from those teachers who have not earned their credibility

as yet - are basically unknown quantities- may produce the opposite effect of the one intended.

Fifth, Revealing aspects of one's self unrelated to teaching: Nothing wrong when teachers and mentors refer to enthusiasms, passions, and concerns outside his /her teaching and advising role. Revealing aspects of one's personhood gives students a sense that they are in the presence of an ordinary person; thus helps in bridging the gap that may have developed between students and their teachers. Often, teachers /mentors use incidents from their own daily lives to illustrate general principles, and talk about those passions that led them to develop an interest in their fields, and in reference to their own extracurricular enthusiasms that sustain and renew these interests [12, 15].

Sixth, Show that you take students seriously: A caring teacher /mentor should listen carefully to any concerns, anxieties, or problems voiced by the students. If none are forthcoming, the teacher should find opportunities and encourage students to speak out their minds and express their concerns - no matter how misplaced or trivial it may be- without interruption, rephrasing, or interpreting their concerns. Even if the teacher is confused about what a student is saying, he /she should be patient and chances are that the same concern will be expressed by another classmate in a clearer manner. When students suggest topics, exercises, and issue they wish to explore, even if these are outside the original scope, the teacher /mentor should consider seriously how to make some compromise to include some of what has been suggested by the students. [15]

Seventh, shouldn't play favorites: Almost in every class there are those students that the teacher prefers to listen to more than others, people whose work he /she looks forward to receiving, and those whom he /she would welcome as personal freinds.Convesely, there are those whom the teacher may dislike personally, and whom he /she thinks are "boring", insensitive, and do not give the course the effort and attention it requires. As a human being, it is normal to warm up for some and freezes in the presence of others. But if the teacher is to be trusted by all students, it is absolutely essential that he /she does not allow himself /herself the luxury of exercising these personal dislikes, and definitely needs to avoid playing favorites. Playing favorites-showing that he /she regards some people work more favorably because of their appealing personalities and prejudiced against other's efforts for their personal attitudes- destroys one's credibility in students' eyes very quickly. [12, 15]

The concepts of credibility, authenticity and the suggested steps towards building trust between students and their teacher and /or mentor are elusive, and made the more so by the fact that they are not standardized. It is not possible to develop ways of telling people how to be credible or authentic, since contextual features affect so strongly how students and teachers define credible and authentic behaviors. The most that could be done is to offer guidelines, give examples of how teachers /mentors in different environments try to build trust, and urge those, who wish to benefit from such experience, to pay attention and try to implement some of the guidelines mentioned earlier. Teaching and advising with care is not easy, and all of the potential balances a teacher is encouraged to try to attain being credible and authentic in the right proportions is a difficult task. But *caring* teachers /mentors should not be discouraged, give up, or neglect the need to build credibility in students' eyes, then, chances are that students will have little confidence in the value of what the teacher /mentor asks them to do. And if the teacher behaves

inauthentically, students will regard teacher's asking them to do it as a self-serving confidence trick.

VIII. Do What You Can?

Despite all the problems that may arise and the difficulties that an advisor or a mentor may face, mentoring is, in author's opinion, intensely personal, interactive, and rewarding. Mentoring can be achieved through a variety of methods. Here's how to "do what you can": [11]

• Identify two to three students or young professionals who could benefit from your insights and experiences. Ask them if they have questions about the scope of engineering and how they might fit in?

• Help your students evaluate employment opportunities that they might not otherwise consider. Encourage them to think about many facets within the profession, and help them secure rewarding summer break experiences, or take a semester off and join a company as a trainee.

• Encourage students to become involved with local, regional, and national professional associations. Membership and involvement in such organizations provides students with priceless leadership opportunities and helps students develop a variety of valuable workplace skills.

• Remember that a student or young engineer may have a different or even a better idea in solving a problem. The young engineer may well bring a perspective that is much more than fresh - t may well be of the "why didn't we think of that" variety.

• Seek out students where they exist. Get involved with local high schools and help them establish an engineering club. Seek involvement with community organizations such as Big Brothers and Big Sisters or Habitat for Humanity. [11]

There is little if any magic in all of this. And, we won't be successful with every student we mentor. But our efforts will be one hundred percent worthwhile as we strive to help make our profession more robust and vibrant for these complex and challenging times.

IX. University's Role in Enhancing Mentoring

The university can enhance the quality of advising /mentoring available to students and increase the potential of having an advisor /advisee turn into a more effective, fruitful and lasting mentor /mentee relationship. Some suggestions, based on the experience of some forward looking universities, may be helpful. [16]

i) The university, in general, and the college in particular, should devise policies that would allow students to have the option of selecting advisors, even if not all parties want this choice. The mentoring relationship is best fostered with sound advice and in a mutually comfortable environment.

ii) The university is, by all measures, the sole organizer for improving advising in all colleges. Training programs, short courses, seminars, etc. should be established and maintained on a college basis.

iii) The university should recognize faculty participation in an advisor training program, and encourage young faculty, in particular, to participate in such programs.

iv) The college and the respective department should establish lines of communications with advisees at all levels, asking for their opinions and views on their relations with their advisors, and how may advisor /advisee relations be improved? Such feed back would help all parties involved.

v) The university should establish a reward system for exemplary mentoring, based on feedback from mentees coupled with a statement from the nominee stating his or her philosophy on mentoring.

vi) Advising with care and mentoring should become part of the tenure and promotion process. Letters should be solicited from former students /mentees soliciting their opinions on the mentoring they received during their college years.

vii) Students at all levels should be asked to complete exit surveys, to assess the experience they have had with their advisors /mentors, and the pros and cons of their experience. [16]

Implementing the above noted ideas will, no doubt, improve the advising process at any university. However, we have to be realistic. If a faculty member, particularly a senior member, does not desire to help students, there is little a university can do to improve the situation. As stated by Vesilind [2], "Mentoring does not come from a guidebook, a set of rules, or even incentives. Mentoring comes from the heart." On the other hand, those who chose to become mentors, mentoring makes a difference in their lives. It's an equal opportunity relationship that is voluntary and mutually beneficial. As a mentor, you will learn just how valuable your experiences and expertise are to another. You will discover new levels of patience and commitment not previously experienced.

X. Concluding Remarks

Mentoring engineering students provides mentors the chance to make a significant difference in someone's life. For the mentor, the benefits of helping a student realize his or her professional goals and aspirations are lifelong, too. Through mentoring, we help students discover themselves and their potential, show them how to apply their skills and special aptitudes, and guide them in defining and pursuing their own career goals. In turn, mentoring helps mentors discover new things about themselves. They will learn just how valuable their knowledge, experience, and expertise are to their mentees. They will also discover new levels of patience and commitment not experienced before. And will marvel at the energy, sincerity, and fresh perspectives of the next generation of professional engineers.

The paper addresses issues of concern to future mentors highlighting the attributes of good mentors and why and how mentors should try to offer friendship to their mentees as part of their professional role. An effective mentor should try to meet students "where they are" in their educational preparation regardless of previous set backs and incompetence. When students reach out to you, take their hand and guide them. They are saying that they trust your wisdom, your experience, and your leadership. Simultaneously, as a mentor, you will enhance your expertise, communication and leadership skills, while helping the student explore a career path and prepare for the transition from college life to the workplace.

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