

# Paving the way

IIT's first ChE alumna recalls her journey in a male-dominated world

by renée I.A. mercuri



Lois Bey, circa 1950s (SWE Archives, Walter P. Reuther Library, Wayne State University)

Lois Bey (BS ChE '50) could read a blueprint before she could read a book. She preferred to play with boys' toys rather than dolls. And she recalls being a child filled with insatiable curiosity; her favorite sentences were, "What are you doing?" and "Show me how."

All this was during the 1930s and 1940s, when girls were expected to fill traditional roles. Bey's mother told her daughter the only career available to Bey was marriage. But Bey, born and raised on Chicago's north side, says, "I was a stubborn child and ignored what she [mother] told me. I did not like her or others trying to mold me into something or somebody I did not like."

Stubbornness along with research at the public library ("I lived in libraries to find answers," she says.) to determine that engineering fields were of most interest to her helped Bey become the first woman to graduate from chemical engineering at IIT on June 9, 1950.

A so-called clerical error initially prevented Bey from receiving a letter indicating she had passed the IIT entrance exam. In addition, her scholarship exam was not graded because, as she was told, "IIT did not give scholarships to women whose only purpose in going to IIT was to find a husband." And until money from her father, who had divorced Bey's mother, came through, Bey completed coursework at Wright Junior College.

Bey recalls that once at IIT her professors seemed to keep a neutral attitude towards her, while her male classmates did not seem to have a problem accepting her. In fact, she says, a number of them fought to have her receive the Tau Beta Pi woman's badge as well as have her accepted as a member of the chemical engineering honor fraternity, all to no avail.

In the first few weeks of her final semester at IIT Bey faced the biggest hurdle to completing her degree. The department office informed her that she would not be graduating because she lacked one hour of liberal studies. At the time, Bey had completed approxi-



mately 154 semester hours, while the chemical engineering degree required 144. She was told that IIT was not accepting all the hours she had earned at Wright Junior College. Yet her brother, who was also working on an IIT engineering degree, had all his Wright hours accepted.

Bey convinced her senior research project advisor, Dr. Resnick, to let her perform a literature search and consider the report equivalent to one hour of liberal studies.

At her graduation in June 1950, Bey was introducing her mother and brother to Louis Smith, an instructor who had just received his doctoral degree. "Dr. Smith congratulated me on obtaining my ChE degree and thanked me for winning his bet," Bey says. "I was puzzled about that. He told me that there was a bet in the ChE department that I would not get my ChE degree in June. That is why I was notified that I would not graduate. He would not tell me who bet for me or against me, which was the right thing to do, but it left me with a bad impression of the ChE department."

Bey says that IIT kept contacting her as an alumna to donate to the IIT scholarship fund. She would continually ask if they awarded scholarships to women engineering students. The school would tell her, "The men need the money," to which Bey would respond, "Then you get the money from the men."

In 2001, Bey was invited to the department's centennial anniversary celebration, where she was honored with the department alumni award "in recognition of her pioneering role as the first female graduate in chemical engineering at IIT, her commitment, and her contribution to the chemical engineering profession." Bey recalls in a Society of Women Engineers (SWE) profile that the proudest moment in her life had been when she accepted her engineering degree at the Civic Opera House. Now the alumni award was another memorable moment in her life, she said in the



In 2001, Bey (seated, right of center) attended the department's 100th anniversary celebration, where she met with women enrolled in chemical and environmental engineering. During the 2000s, ChEE has graduated an average of 12 female students a year in undergraduate chemical engineering.

(ChEE Archives)

Institute, where she spent two years working in the engineering labs and another two years being bounced between the technical information center (which assisted chemists with literature searches) and chemical engineering projects. "I never started a project or finished a project," she says. "I only went into projects that were in trouble and got them out of trouble and went back to the technical information center."

Bey again faced a clerical error when she was granted a raise but not a promotion for her ARF work. She decided to accept a job offer to work as a sales engineer with F.M. DeBeers Associates. When she told the department head about her plans, ARF offered her an immediate promotion and a 37 per cent salary increase over 18 months. "And I said, 'Too late.'" Bey says.

Bey excelled as a sales engineer and eventually had the top sales. She admits, however she felt burned out after four years selling chemical processing equipment and frustrated because she had found out the company owner was stealing her commissions. According to Bey, the owner said, "No woman is going to make more money than me."

An offer from Baxter Laboratories to be their chief librarian appealed to her. She was a major factor in building the Baxter information resource center, which conducted technical and patent searches, and wrote medical articles and company brochures, from a staff of two to a staff of 28. She left after 27 years of service and retired in 1993, six years after joining the Stepan Company.

The irony of Bey's discrimination frustrations was that she says all she wanted was "to work in a field I enjoyed and to take pride in what I was doing" and when it came to her education, "I just enjoyed the engineering classes. I liked the challenges and solving problems." She says she started a master's degree and had ambitions to get a PhD and teach chemical engineering courses, but she had to drop her coursework when work as a sales engineer kept her traveling.

Bey, now 77 and living in Las Vegas, has faced several health problems in recent years, but her memory for the details of her ambitions and the challenges she faced are clear and unfettered with age.

Her wishes for future women in engineering are equally clear.

"I just hope that today's young ladies don't face the discrimination I faced before college, during college and after college." ✖

profile. At the ChEE anniversary event, Bey met many IIT women engineers. "I started donating then because the women, they need the money," she says. "I will continue to donate as long as possible."

Outside of IIT, Bey embarked on a 43-year career where she also encountered resistance as a woman in the chemical engineering profession.

This initial resistance became apparent in job interviews. Some interviewers were not receptive to Bey and one interviewer in particular looked at her and said, "Get out. I only talk to men."

Curtis Wellbourne, the president of Underwriters' Laboratories felt differently about women in engineering, Bey says. He told Bey that women saved his company during the Second World War, so when he saw the publicity surrounding Bey's graduation, he decided to "return the favor" as Bey describes it, and offered her a job.

Bey says that her boss at Underwriters' wasn't happy about having the first woman engineer in the company assigned to him. He even refused her request to receive the same pay as the men in her position.

Around this time in 1951, Bey was contacted by the Society of Women Engineers, whose members helped her deal with the discrimination she faced. Her association with the organization continues to this day, where she is recognized as a pioneer and lifetime member.

Back in the early 1950s, the best Bey could do to deal with her boss's inequitable treatment was to look for work elsewhere. She joined the Armour Research Foundation (ARF), now the IIT Research



Bey (right) on the day of her graduation, June 9, 1950, with Shirley Schultz-Keenan (BS CE '50) (left) and Ira Graham (BS FPSE '50) (center). (IIT Archives)