

BY THE SANDPAPER2.0 TEAM

Back to BITS

BITS Pilani – a place we’ve all fallen in love with. Sometimes, all of us hope that we can come back, and re-live those days. Here are a few of our faculty doing exactly that. Get to know these faculty members: BITSians then, and BITSians, now.

PROF L K MAHESHWARI

Professor Maheshwari obtained his ME and PhD in Electrical and Electronics Engineering from BITS Pilani in 1971. He was offered a teaching position at both REC Tiruchinapally and at BITS Pilani, but decided to remain at BITS. Since then, he has been an integral part of the EEE faculty as well as one of the pillars of the administration. He is currently the Director of the BITS Pilani campus.



Prof L K Maheshwari

Professor Maheshwari feels that the changes in BITS since 1965 are two-fold. First, society has changed and become more open. In those days, BITS had a uniform for students and girls and boys were not permitted to speak to each other. Anyone caught violating this rule was fined! Other similar restrictions

were placed upon students, which are absent today. He feels that this change is for the better, since an open and free environment is more conducive to students thinking and learning on their own.

The second important change is the improvement of infrastructure. Even in the 1970s, BITS was one of the foremost institutions in the nation with respect to infrastructure. The flexible education system, laboratory facilities and collaboration with foreign universities such as MIT meant that BITS was a name to contend with in the field of education. Even today, infrastructure continues to improve, with the Library, Lecture Theatre Complex and now the Student Activities Centre. The primary issue with infrastructure, says the Director, is that no one utilizes it well. “The Library has a seating capacity of 1200,” he says with a smile, “but I have hardly seen more than a few odd people inside. To all those who complain about what we don’t have in BITS, I’d like to say, first use what we do have.”

Finally, how can alumni in other parts of the world give something back? “Don’t contribute money, give your time instead,” he insists. He quotes the campus-wide LAN – NEURON as an example of the active involvement of BITSian alumni in improving student life at BITS. This alumni involvement is continuing through other projects.

Three 1968 Chemical Engineering graduates are currently pioneering a “Desert Development Technology” programme to improve agriculture in the desert.

If not through a live project, alumni can be guest faculty in BITS. Guest faculty may teach for a week, a month, a semester or a year, as per their choice and convenience. “Once they are in India, BITS Pilani will take care of their every need,” Professor Maheshwari says with a smile. “If they are willing to come back and actually interact with BITSians here on campus, we are more than willing to make the teaching experience worth their while. We can arrange for them to attend conferences in India and broaden their own horizons, while they help our students broaden theirs.” He urges alumni to help BITSians fine-tune their entrepreneurial skills. He feels that with their hands-on experience and knowledge of the industry, alumni can turn an amateurish idea into a successful business venture. He is also optimistic about recent mentoring programs that have been begun by alumni groups. He sums it up all in two words, “Be involved.”

PROF S BALASUBRAMANIAM

Prof. S Balasubramaniam completed his BE (Hons) from the EEE department, BITS, Pilani in 1970, and further went on to complete his ME as well from the EEE department in 1972. After a working and teaching experience of 26 years, he joined the BITS faculty in 1998.



Prof S Balasubramaniam

He is currently Group Leader of the EEE department at BITS.

After he completed his advanced studies from BITS, he joined the Microwave Division of the *Indian Space Research Organization* (ISRO), Ahmedabad as a Microwave Engineer. He was involved in the system design, system integration and environmental qualification of the Satellite Microwave Radiometer (SAMIR), which was one of the primary payloads on board the BHASKARA – I, used for the measurement of sea state and sea roughness. SAMIR was India's First remote sensing payload and sent the First remotely sensed data from BHASKARA-I. He was also part of the second launch campaign during November 1981. He later joined the *ISRO Satellite Center* at Bangalore. Here as project manager, he formed a team for radio frequency and microwave work. After substantial R&D experience, he joined the Bangalore University. It was during this time that he met **Prof. Gopalan**, who had been

the placement officer when he was a student at BITS. He was motivated to involve himself in the Distance Learning Programme Division (DLPD) of the Institute, following which he joined BITS, Pilani as Associate Professor in November 1998.

Prof. Balasubramaniam has handled courses related hardcore to communication, such as *Communication Systems, Circuits and Signals, Satellite Communication, Mobile Telecom Networks, Advanced Digital*

Communication, Mobile and Radio Frequency Microelectronics, which are specifically his areas of interest. Believing firmly in the fact that each course should be supplemented by a lab component, he set up the Communications Lab, the RF & Microwave Lab and the Digital Signal Processing Lab at BITS. He is one of the Research Advisors for the research projects undertaken by BITS, under the BITS-NOKIA Research Collaboration. He has also published various research papers, the latest of which concentrate on Mobile Networks.

Prof. Balasubramaniam explains there is now a need in the industry in the fields of Power Electronics, RF & Microwave, Power Systems, Electromagnetic Fields and Waves, et cetera for which personnel need to be trained and motivated. The advent of wireless applications will need students and professionals with sound knowledge and background in these fields. In India, just as in the field of mobile communication, there is a tremendous need in ISRO, defence and other industries, for which workers have to be trained. If people join BITS to undertake sponsored research

work, faculty can ensure that problems are addressed exactly in the critical areas. The best people who are already familiar with the system are, of course, the alumni. According to him, today's students are more interested in specializing in a narrow area, which is probably due to a larger quantum of peer pressure. Keeping this in mind, the prospects for alumni in BITS are tremendous. Teaching now requires people with the background and with experience.

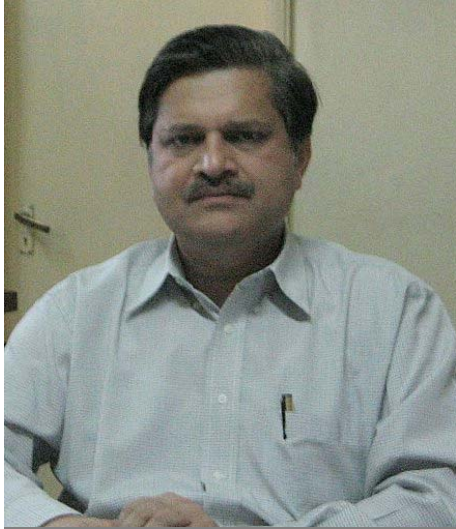
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DR. R K MITTAL

Dr. R K Mittal joined BITS in 1968, for his Bachelor's degree in Mechanical. He also completed his Master's in *Mechanical Engineering* during the years 1973-'75. Even though he received other job offers at the time, he decided to teach at BITS and went on to complete his PhD here. He is now the Dean of the *Academic Regulation and Counseling Division* (ARCD) as well as the President of the *BITS Alumni Association*, BITSAA.

Dr. Mittal has been associated with the institute for nearly two decades and he thinks the teachers at BITS receive the best of everything. The kind of freedom that the BITS style of education gives a teacher cannot be found anywhere else. A congenial environment, which is conducive to research, and the facilities available ensure that the teachers are not hindered in any way. He feels that Pilani has no lack of facilities due to its location. Indeed, it has everything a metro can offer.

As president of BITSAA, Dr Mittal is often asked by alumni as to how they can contribute to BITS. Unlike US universities, BITS never asks for a yearly donation. In his own words, "The IITs may be cash-strapped, but we certainly aren't." He feels that more than monetary contributions, intellectual inputs from alumni would



Prof R K Mittal

the prospect of doing some higher studies and obtaining a Masters in engineering. It is with this intention that he joined as TA. Further, he believes that he had a flair for teaching as well. Part of his motivation to teach was his teachers, who had impressed him a lot during his student life. He says that his experience and position as a teacher is a tribute to those who taught him and incited him to do the same. Of course, the fact that he was selected to join the faculty as Assistant Lecturer after completion of his ME programme is witness to

this fact.

Dr. Gurunarayanan has now been



Prof S Gurunarayanan

faculty at BITS for 17 years. He has handled a variety of courses such as *Microprocessor Programming and Interfacing* (which has been revamped over the years to include newer versions of microprocessors), *Physics and Modeling of Electronic Devices*, *Analog Electronics*, *Electronic Devices and Integrated Circuits*,

Embedded Systems Design, *Digital Electronics and Computer Organization* and *VLSI Design and Architecture*. He has also supervised various project courses and theses.

He believes BITS provides something that many universities do not offer: a free hand in teaching. What is special about this feature is that the instructors realize that they cannot just do what they want and get away with it. With freedom comes an equal amount of responsibility, and as faculty everyone realizes this fact. It is also not necessary that people have to stick to his discipline or field of study while teaching in the institute. For him, every course has been a learning experience. The courses he has taught and those he is currently teaching differ significantly from the ones he studied in his ME. Thus his teaching experience has helped him learn a lot.

BITS Pilani holds many prospects for an alumnus. BITS welcomes alumni participation to improve its teaching expertise. There is also much scope for growth, with the current level of industry participation and research facilities available in the institute. Lab facilities have also come a long way with the advent of sponsored labs, such as the OLAB, which create facilities conducive for research. The inbuilt flexibility of the system should also impress the alumni. Apart from this, the alumni could also help in Practice School and Distance Learning Programmes of the institute. An effective and useful way to “give back” to your alma mater!

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be more beneficial. Alumni who wish to take a sabbatical are always welcome to come to BITS for a semester or two. BITS could always offer a course in their area of specialization for that period. He assures alumni that they will be provided furnished accommodation and compensated for their input. Any alumnus is always welcome to return to BITS.

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DR. S. GURUNARAYANAN

He joined BITS as a teaching assistant in 1987 after he completed his MSc. Physics programme. At BITS, he joined the ME *Systems and Information* programme in 1988, which he completed in 1990. Later on, he also did his PhD from the institute. He is currently Professor in the Instrumentation Group and Assistant Dean, Engineering Services Division at BITS.

After he had finished his MSc. programme, **Dr. Gurunarayanan** joined BITS in